

# JVC

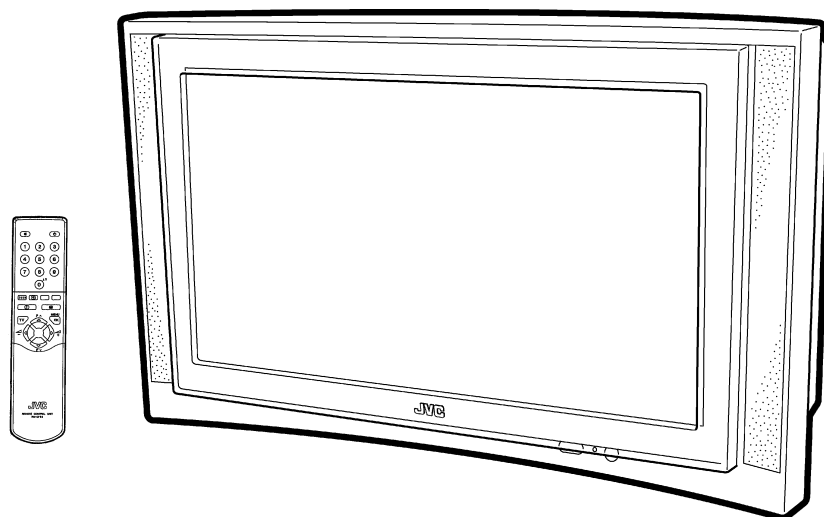
## SERVICE MANUAL

### COLOUR TELEVISION

**AV-32WL1EU**  
**AV-32WL1EI**  
**AV-32WL1EK**

BASIC CHASSIS

MD



## CONTENTS

|   |     |
|---|-----|
| ■ SPECIFICATIONS .....                      | 2   |
| ■ SAFETY PRECAUTIONS .....                  | 4   |
| ■ FEATURES / FUNCTIONS .....                | 6   |
| ■ MAIN DIFFERENCE PARTS LIST .....          | 8   |
| ■ SPECIFIC SERVICE INSTRUCTIONS .....       | 10  |
| ■ SERVICE ADJUSTMENTS .....                 | 16  |
| ★ STANDARD CIRCUIT DIAGRAM (APPENDIX) ..... | 2-1 |
| ■ PARTS LIST .....                          | 35  |

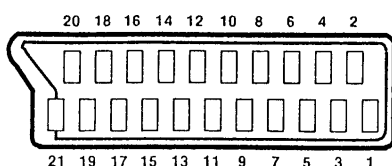
# SPECIFICATIONS

| Item  | Content   |  |
|---|---|--|
|   | AV-32WL1EU<br>AV-32WL1EI  | AV-32WL1EK   |
| <b>Dimensions ( W × H × D )</b>   | 901mm × 556mm × 557mm   | 901mm × 556mm × 557mm                                  |
| <b>Mass</b>   | 54.7kg  | 54.7kg   |
| <b>TV RF System</b>   | CCIR B/G, I, D/K, L   | CCIR I   |
| <b>Colour System</b>  | PAL / SECAM<br>NTSC 3.58 / 4.43(Play back only)   | PAL<br>NTSC3.58 / 4.43(Play back only)                 |
| <b>Stereo System</b>  | A2 / (B/G, D/K) , NICAM (B/G, I, D/K, L )   | NICAM(I)   |
| <b>Teletext System</b>  | Fastext(United Kingdom system)<br>TOP(German system)<br>WST(Standard system)  | Fastext(United Kingdom system)<br>WST(Standard system) |
| <b>Receiving Frequency</b> <b>VHF</b><br><b>UHF</b><br><b>French CATV</b> | 47MHz~ 470MHz<br>470MHz~862MHz<br>116MHz~172MHz / 220MHz~469MHz   | <br>470MHz~862MHz<br><br>                              |
| <b>Intermediate Frequency</b><br><b>VIF Carrier</b><br><b>SIF Carrier</b> | 38.9MHz(B/G, D/K, I, L) / 34.10MHz(L)<br>33.4MHz(5.5MHz : B/G) / 32.9MHz(6.0MHz : I) /<br>32.4MHz(6.5MHz : L, D/K) / 40.6MHz(6.5MHz : L)  | 39.5MHz(I)<br>33.5MHz(6.0MHz : I)                      |
| <b>Colour Sub Carrier</b> <b>PAL</b><br><b>SECAM</b><br><b>NTSC</b>       | 4.43MHz<br>4.40625MHz / 4.25MHz<br>3.58MHz / 4.43MHz  | 4.43MHz<br><br>3.58MHz / 4.43<Hz                       |
| <b>Power Input</b>  | AC 220V~240V , 50Hz   | ←  |
| <b>Power Consumption</b>  | 195W(Max), 145W(Avg)  | ←  |
| <b>Picture Tube</b>   | Visible size : 76cm, Measured diagonally  | ←  |
| <b>High Voltage</b>   | 31.5kV    +1kV<br>-1.5kV (at zero beam current)   | ←  |
| <b>Speaker</b>  | 16cm × 4cm oval × 2   | ←  |
| <b>Audio Output</b>   | 7.5W+7.5W   | ←  |
| <b>EXT-1/EXT-2/EXT-3<br/>(Input / Output)</b>                             | 21-pin Euro connector (SCART socket)  | ←  |
| <b>EXT4 (Input)</b>   | <b>Video</b> 1Vp-p 75 Ω (RCA pin jack)<br><b>Audio(L/R)</b> 500mVrms(-4dBs), High Impedance(RCA pin jack)<br><b>S-VIDEO</b> Y : 1Vp-p Positive (negative sync provided, when terminated with 75 Ω)<br>C : 0.286Vp-p (burst signal, when terminated with 75 Ω) | ←  |
| <b>AUDIO OUT</b>  | <b>Variable</b> 0-1 Vrms, low impedance   |  |
| <b>Aerial Input</b>   | 75Ω unbalanced, Coaxial   | ←  |
| <b>Headphone jack</b>   | Stereo mini jack ( ϕ 3.5mm )  | ←  |
| <b>Remote Control Unit</b>  | RM-C54 (AAA/R03 dry battery × 2 : AV-32WL1EU)<br>RM-C55 (AAA/R03 dry battery × 2 : AV-32WL1EI)  | RM-C55 (AAA/R03 dry battery × 2)                       |

Design & specifications are subject to change without notice.

## ■ 21-pin Euro connector (SCART socket) : EXT-1 / EXT-2 / EXT-3

[PIN ASSIGNMENT]



(P-P= Peak to Peak, S-W= Sync tip to white peak, B-W= Blanking to white peak)

| No. | Signal Designation    | Matching Value   | EXT-1         | EXT-2           | EXT-3         |
|-----|-----------------------|--|---------------|-----------------|---------------|
| 1   | AUDIO R output        | 500mVrms(Nominal), Low impedance                                   | ○<br>(TV OUT) | ○<br>(LINE OUT) | NC            |
| 2   | AUDIO R input         | 500mVrms(Nominal), High impedance                                  | ○             | ○               | ○             |
| 3   | AUDIO L output        | 500mVrms(Nominal), Low impedance                                   | ○<br>(TV OUT) | ○<br>(LINE OUT) | NC            |
| 4   | AUDIO GND             |  | ○             | ○               | ○             |
| 5   | GND (B)               |  | ○             | ○               | ○             |
| 6   | AUDIO L input         | 500mVrms(Nominal), High impedance                                  | ○             | ○               | ○             |
| 7   | B input               | 700mV <sub>B-W</sub> , 75 Ω  | ○             | NC              | NC            |
| 8   | FUNCTION SW (SLOW SW) | Low : 0-3V, High : 8-12V, High impedance                           | ○             | ○               | ○             |
| 9   | GND (G)               |  | ○             | ○               | ○             |
| 10  | SCL3                  |  | NC            | ○<br>(T-V LINK) | NC            |
| 11  | G input               | 700mV <sub>B-W</sub> , 75 Ω  | ○             | NC              | NC            |
| 12  | SDA3                  |  | NC            | ○               | NC            |
| 13  | GND (R)               |  | ○             | ○               | ○             |
| 14  | GND (Y <sub>S</sub> ) |  | ○             | NC              | NC            |
| 15  | R / C input           | R : 700mV <sub>B-W</sub> , 75 Ω<br>C : 300mV <sub>P-P</sub> , 75 Ω | ○<br>(only R) | ○<br>(only C)   | ○<br>(only C) |
| 16  | Ys input              | Low : 0 - 0.4, High : 1 - 3V, 75 Ω                                 | ○             | NC              | NC            |
| 17  | GND(VIDEO output)     |  | ○             | ○               | ○             |
| 18  | GND(VIDEO input)      |  | ○             | ○               | ○             |
| 19  | VIDEO output          | 1V <sub>P-P</sub> (Negative going sync), 75 Ω                      | ○<br>(TV)     | ○<br>(LINE OUT) | NC            |
| 20  | VIDEO / Y input       | 1V <sub>P-P</sub> (Negative going sync), 75 Ω                      | ○             | ○               | ○             |
| 21  | COMMON GND            |  | ○             | ○               | ○             |

# SAFETY PRECAUTIONS

AV-32WL1EI / AV-32WL1EK

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessary be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by shading on the schematics and by ( $\Delta$ ) on the Parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the Parts List of Service Manual may cause shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubing's, barriers and the like to be separated from live parts, high temperature parts, moving parts and / or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

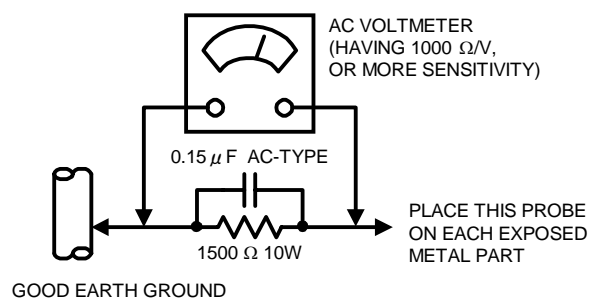
## WARNING

1. The equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

# SAFETY PRECAUTIONS

AV-32WL1EU

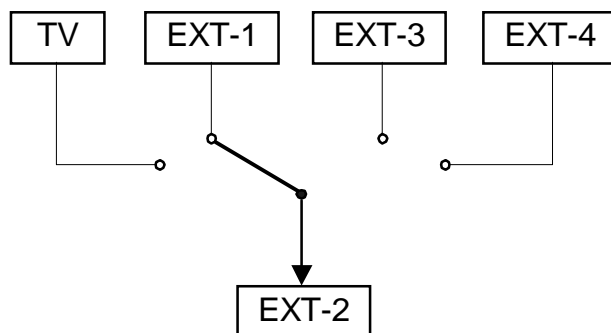
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- Don't short between the LIVE side ground and ISOLATED (NEUTRAL) side ground or EARTH side ground when repairing.**  
Some model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND, the ISOLATED(NEUTRAL) : (⌚) side GND and EARTH : (⊕) side GND. Don't short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND and never measure with a measuring apparatus (oscilloscope etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND or EARTH side GND at the same time.  
If above note will not be kept, a fuse or any parts will be broken.
- If any repair has been made to the chassis, it is recommended that the B1 setting should be checked or adjusted (See ADJUSTMENT OF B1 POWER SUPPLY).
- The high voltage applied to the picture tube must conform with that specified in Service manual. Excessive high voltage can cause an increase in X-Ray emission, arcing and possible component damage, therefore operation under excessive high voltage conditions should be kept to a minimum, or should be prevented. If severe arcing occurs, remove the AC power immediately and determine the cause by visual inspection (incorrect installation, cracked or melted high voltage harness, poor soldering, etc.). To maintain the proper minimum level of soft X-Ray emission, components in the high voltage circuitry including the picture tube must be the exact replacements or alternatives approved by the manufacturer of the complete product.
- Do not check high voltage by drawing an arc. Use a high voltage meter or a high voltage probe with a VTVM. Discharge the picture tube before attempting meter connection, by connecting a clip lead to the ground frame and connecting the other end of the lead through a 10kΩ 2W resistor to the anode button.
- When service is required, observe the original lead dress. Extra precaution should be given to assure correct lead dress in the high voltage circuit area. Where a short circuit has occurred, those components that indicate evidence of overheating should be replaced. Always use the manufacturer's replacement components.
- Isolation Check (Safety for Electrical Shock Hazard)**  
After re-assembling the product, always perform an isolation check on the exposed metal parts of the cabinet (antenna terminals, video/audio input and output terminals, Control knobs, metal cabinet, screwheads, earphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
- (1) Dielectric Strength Test**  
The isolation between the AC primary circuit and all metal parts exposed to the user, particularly any exposed metal part having a return path to the chassis should withstand a voltage of 3000V AC (r.m.s.) for a period of one second.  
(. . . Withstand a voltage of 1100V AC (r.m.s.) to an appliance rated up to 120V, and 3000V AC (r.m.s.) to an appliance rated 200V or more, for a period of one second.)  
This method of test requires a test equipment not generally found in the service trade.
- (2) Leakage Current Check**  
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground (water pipe, etc.). Any leakage current must not exceed 0.5mA AC (r.m.s.).  
However, in tropical area, this must not exceed 0.2mA AC (r.m.s.).  
**● Alternate Check Method**  
Plug the AC line cord directly into the AC outlet (do not use a line isolation transformer during this check.). Use an AC voltmeter having 1000 ohms per volt or more sensitivity in the following manner. Connect a 1500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground (water pipe, etc.). Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75V AC (r.m.s.). This corresponds to 0.5mA AC (r.m.s.).  
However, in tropical area, this must not exceed 0.3V AC (r.m.s.). This corresponds to 0.2mA AC (r.m.s.).



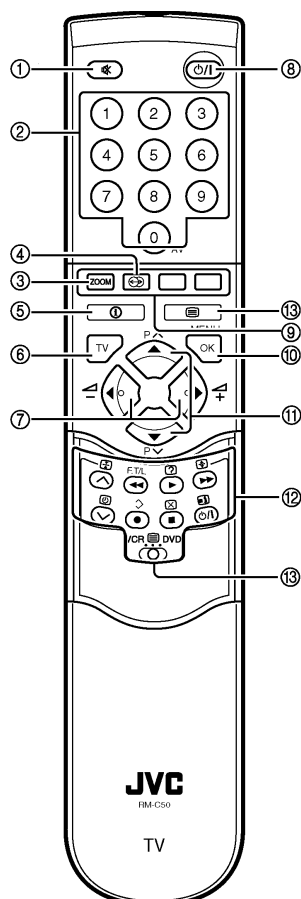
# FEATURES

- By preference, users can select the picture size from REGULAR, PANORAMIC, 14:9 ZOOM, 16:9 ZOOM, 16:9 ZOOM SUBTITLE, FULL modes. When the TV unit received WSS picture signal, the picture can be changed to 16:9 mode automatically.
- The TELETEXT SYSTEM has a built-in Fastext, TOP and WST system (TOP systems are except for AV-32WL1EK).
- Because this TV unit corresponds to multiplex broadcast, users can enjoy music programs and sporting events with live realism. In addition, BILINGUAL programs can be heard in their original language.
- In accordance with the brightness in a room, the brightness and/or contrast of the picture can be adjusted automatically to make the optimum picture which is easy on the eye.
- Users can make VCR dubbing of picture and sound by controlling the AV selector to select an optional source at the EXT-2 output shown in figure.
- Built-in T-V LINK.

## EXT TERMINAL SWITCHING SYSTEM



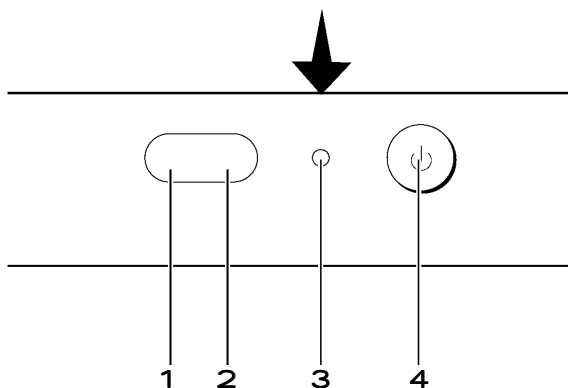
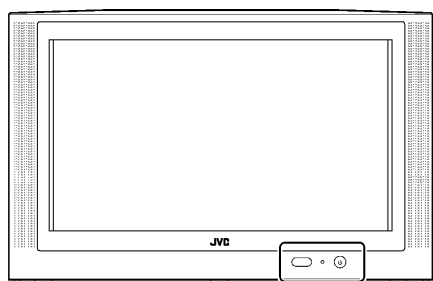
# FUNCTIONS- I



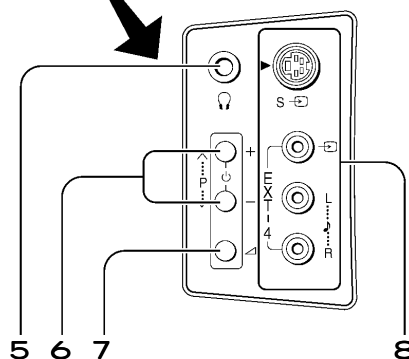
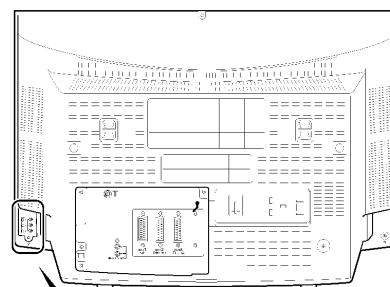
- ①MUTING key
- ②NUMBER key
- ③ZOOM key
- ④HYPER SOUND key
- ⑤INFORMATION key
- ⑥TV key
- ⑦VOLUME +/- key (FUNCTION LEFT/RIGHT key)
- ⑧STANDBY key
- ⑨COLOUR buttons key
- ⑩OK / MENU key
- ⑪PR  $\Delta$  /  $\nabla$  key (FUNCTION UP/DOWN key)
- ⑫VCR/TELETEXT/DVD control key
- ⑬VCR/TELETEXT/DVD key

# FUNCTIONS- II

## ■ FRONT PANEL & SIDE CONTROL JACK

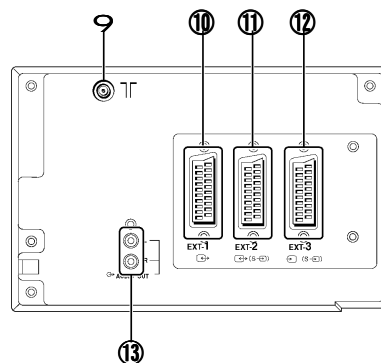
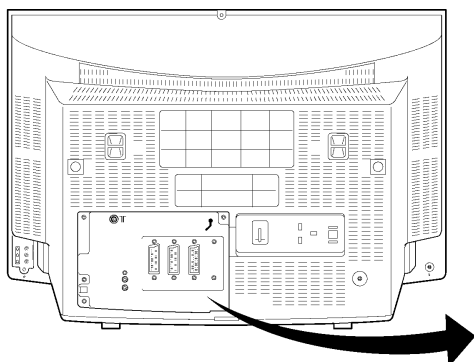


- 1 Remote control sensor
- 2 ECO sensor
- 3 Power lamp
- 4 Main power button



- 5 Head phone jack
- 6 P  $\Delta/\nabla$  button (-/+ buttons)
- 7 Volume button
- 8 EXT-4 terminal (S, V, L, R)

## ■ REAR PANEL



- 9 Aerial socket
- 10 EXT-1 terminal
- 11 EXT-2 terminal

- 12 EXT-3 terminal
- 13 AUDIO OUT terminal

# MAIN DIFFERENCE PARTS LIST

| ⚠ | Model Name    | AV-32WL1EU   | AV-32WL1EI     | AV-32WL1EK     |
|---|---------------|--|----------------|----------------|
|   | Part Name     |  |                |                |
|   | MAIN PWB      | SMD-1006A-U2                                       | ←              | SMD-1903A-U2   |
|   | IF PWB        | SMD0F003A-U2                                       | ←              | SMD0F903A-U2   |
| ⚠ | POWER CORD    | QMPK160-185-JC                                     | QMPN130-185-JC | ←              |
| ⚠ | RATING LABEL  | LC20379-006A-U<br>LC20380-006A-U                   | LC20080-009A-U | LC20075-030A-U |
|   | REMOCON UNIT  | RM-C54-1C  | RM-C55-1C      | ←              |
|   | EURO LABEL    | AEM1039-093-E                                      | AEM1052-002-E  | AEM1052-001-E  |
|   | WARNING LABEL | LC30789-002A-U                                     | _____          | _____          |
| ⚠ | INST BOOK     | LCT0803-001A-U<br>LCT0804-001A-U<br>LCT0805-001A-U | LCT0807-001A-U | LCT0806-001A-U |
|   | X-RAY CARD    | AEM1054-001-E                                      | _____          | _____          |
|   | S. DIAGRAM    | 32WL1EU-HSAE                                       | _____          | _____          |

## REPLACEMENT OF CHIP COMPONENT

### ■ CAUTIONS

1. Avoid heating for more than 3 seconds.
2. Do not rub the electrodes and the resist parts of the pattern.
3. When removing a chip part, melt the solder adequately.
4. Do not reuse a chip part after removing it.

### ■ SOLDERING IRON

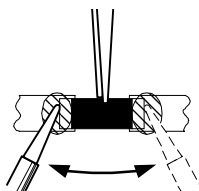
1. Use a high insulation soldering iron with a thin pointed end of it.
2. A 30w soldering iron is recommended for easily removing parts.

### ■ REPLACEMENT STEPS

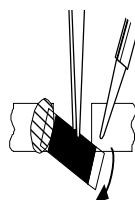
#### 1. How to remove Chip parts

##### ◆ Resistors, capacitors, etc

- (1) As shown in the figure, push the part with tweezers and alternately melt the solder at each end.

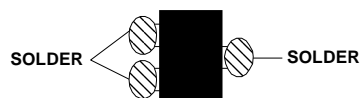


- (2) Shift with tweezers and remove the chip part.

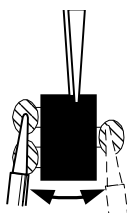


##### ◆ Transistors, diodes, variable resistors, etc

- (1) Apply extra solder to each lead.



- (2) As shown in the figure, push the part with tweezers and alternately melt the solder at each lead. Shift and remove the chip part.

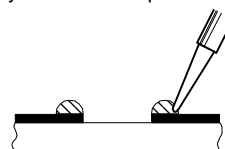


*Note : After removing the part, remove remaining solder from the pattern.*

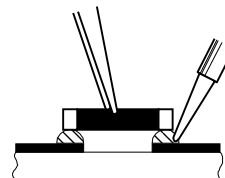
#### 2. How to install Chip parts

##### ◆ Resistors, capacitors, etc

- (1) Apply solder to the pattern as indicated in the figure.

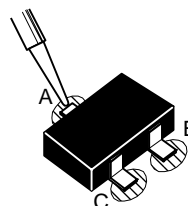


- (2) Grasp the chip part with tweezers and place it on the solder. Then heat and melt the solder at both ends of the chip part.

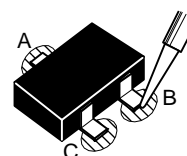


##### ◆ Transistors, diodes, variable resistors, etc

- (1) Apply solder to the pattern as indicated in the figure.
- (2) Grasp the chip part with tweezers and place it on the solder.
- (3) First solder lead **A** as indicated in the figure.



- (4) Then solder leads **B** and **C**.



# SPECIFIC SERVICE INSTRUCTIONS

## DISASSEMBLY PROCEDURE

### REMOVING THE REAR COVER

1. Unplug the power cord plug from wall outlet.
2. As shown in Fig.4, remove the **11** screws marked **A** .
3. Withdraw the REAR COVER toward you.

### REMOVING THE CHASSIS BASE

- After removing the REAR COVER.
1. Slightly raise the both sides of the chassis base by hand and remove the 2 claws under the both sides of the chassis base from the FRONT CABINET.
  2. Withdraw the chassis base backward.  
(If necessary, take off the wire clamp, connectors etc.)

### REMOVING THE AV BOARD

- After removing the REAR COVER.
1. As shown in Fig.4, remove the **4** screws marked **B** .
  2. As shown in Fig.1, remove the claws marked **C** under the chassis.
  3. As shown in Fig.1, while raising the claw marked **D** , remove the top of the AV BOARD slightly in the direction of arrow **E** .

### REMOVING THE SPEAKER BOX

- After removing the REAR COVER.
1. As shown in Fig.4, remove the **2** screws marked **F** , then remove the SPEAKER BOX from FRONT CABINET.
  2. Follow the same steps when removing the other hand SPEAKER BOX.

### REMOVING THE CONTROL BASE

- After removing the CHASSIS.
1. As shown in Fig.2, while pushing down the claws marked **G** , remove the CONTROL BASE in the arrow direction **H** .

### REMOVING THE FRONT COVER

- After removing the REAR COVER.
1. As shown in Fig.3, remove the 12 claws, marked **J** .
  2. Withdraw the FRONT COVER forward front.

### CHECKING THE PW BOARD

To check the back side of the PW Board.

- 1) Pull out the chassis. (Refer to REMOVING THE CHASSIS).
- 2) Erect the chassis vertically so that you can easily check the back side of the PW Board.

#### [CAUTION]

- When erecting the chassis, be careful so that there will be no contacting with other PW Board.
- Before turning on power, make sure that the wire connector is properly connected.
- When conducting a check with power supplied, be sure to confirm that the CRT EARTH WIRE (BRAIDED ASS'Y) is connected to the CRT SOCKET PW board.

### WIRE CLAMPING AND CABLE TYING

1. Be sure to clamp the wire. Never remove the cable tie used for tying the wires together.  
Should it be inadvertently removed, be sure to tie the wires with a new cable tie.

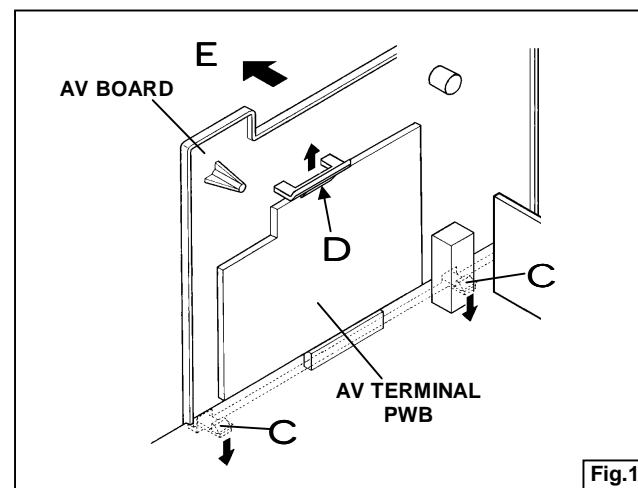


Fig.1

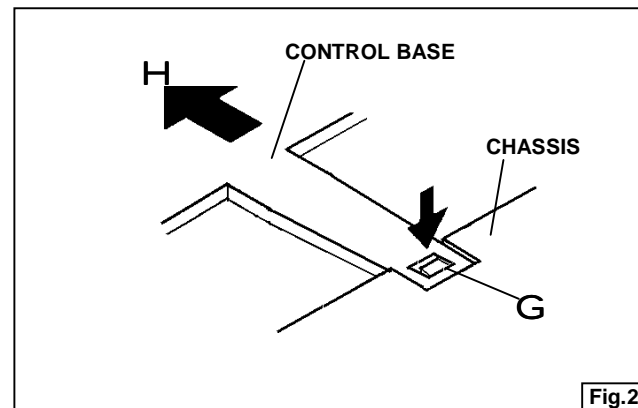


Fig.2

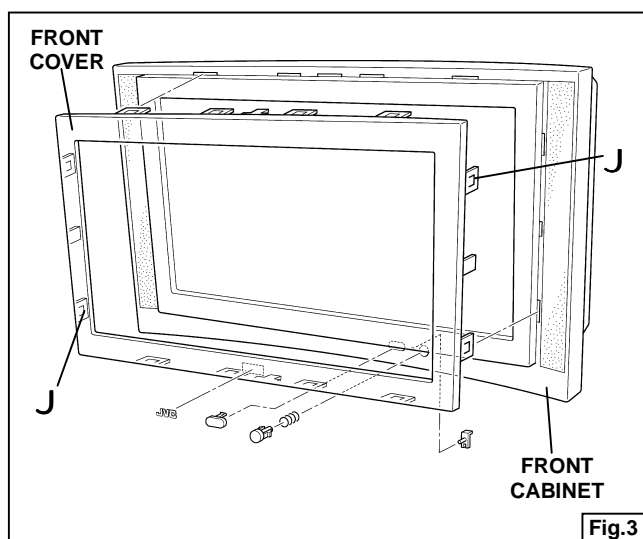
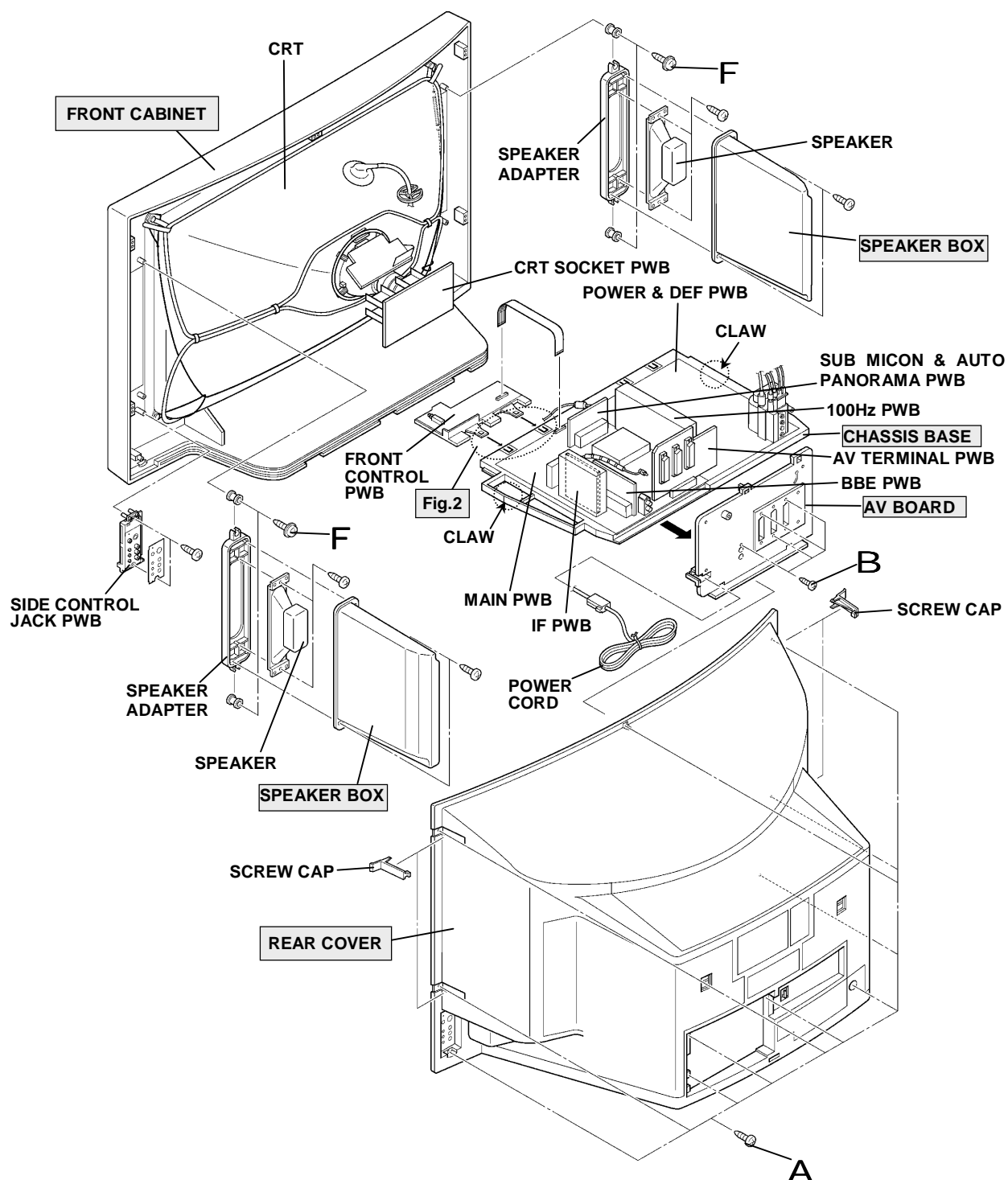


Fig.3



This exploded view describes about AV-32WL1EU. Although AV-32WL1EI/EK has some different from this figure, you can use the exploded view for disassembling the AV-32WL1EU in the same steps.

**Fig.4**

## REMOVING THE CRT

Replacement of the CRT should be performed by 2 or more persons.

After removing the cover, chassis etc..

1. Putting the CRT change table on soft cloth, the CRT change table should also be covered with such soft cloth (shown in Fig.5).
2. While keeping the surface of CRT down, mount the TV set on the CRT change table balanced will as shown in Fig.5.
3. Remove 4 screws marked by arrows with a box type screw driver as shown in Fig.6.  
Since the cabinet will drop when screws have been removed, be sure to support the cabinet with hands.
4. After 4 screws have been removed, put the cabinet slowly on cloth (At this time, be carefully so as not to damage the front surface of the cabinet) shown in Fig.7.

The CRT should be assembled according to the opposite sequence of its dismantling steps.

The CRT change table should preferably be smaller than the CRT surface, and its height be about 35cm.

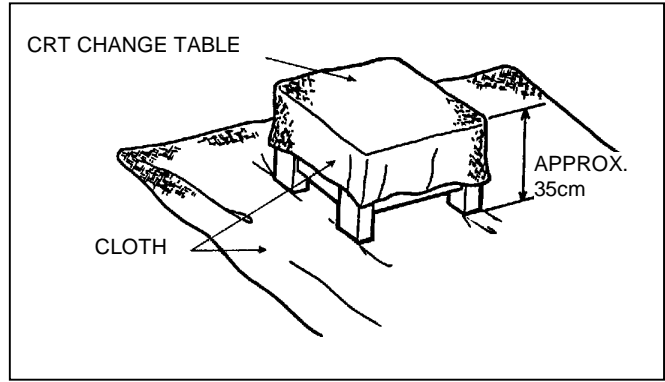


Fig. 5

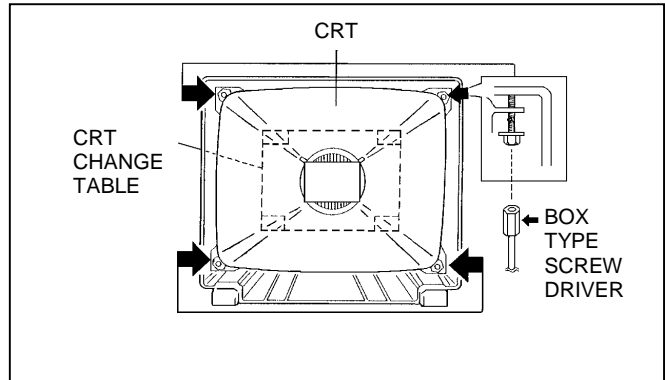


Fig. 6

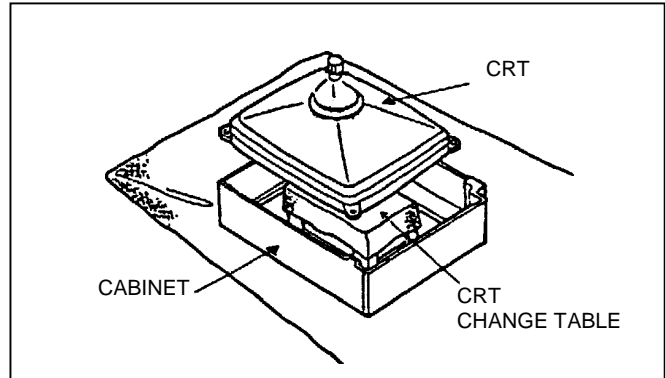


Fig. 7

## COATING OF SILICON GREASE FOR ELECTRICAL INSULATION ON THE CRT ANODE CAP SECTION.

Subsequent to replacement of the CRT and HV transformer or repair of the anode cap, etc. by dismantling them, be sure to coat silicon grease for electrical insulation as shown in Fig.8.

Wipe around the anode button with clean and dry cloth. (Fig.8)

Coat silicon grease on the section around the anode button. At this time, take care so that any silicon greases dose not stick to the anode button. (Fig.9)

★ Silicon grease product No. KS - 650N

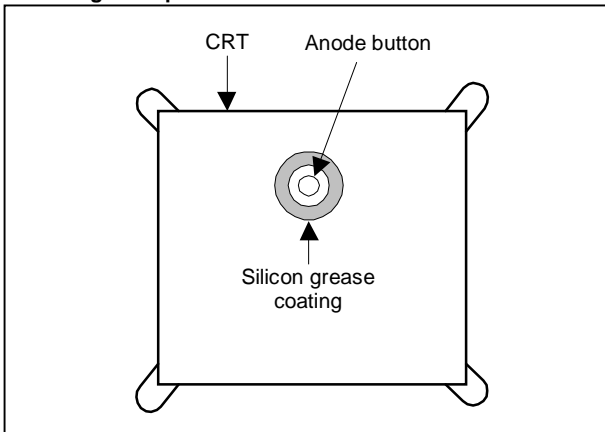


Fig. 8

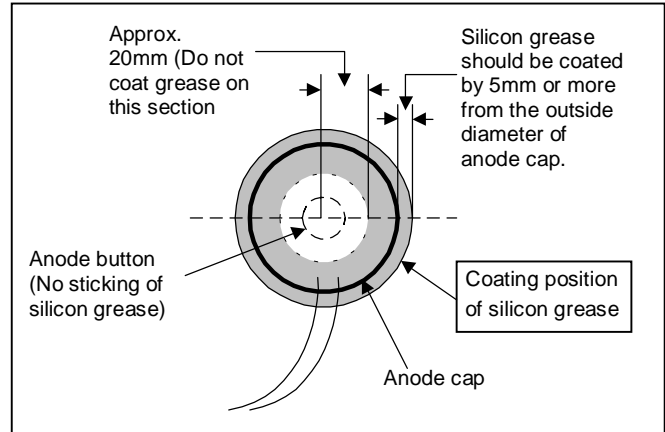


Fig. 9

# REPLACEMENT OF MEMORY ICs

## 1. Memory ICs

This model uses memory ICs. This memory IC data are for proper operation of the video and deflection circuits. When replacing, be sure to use ICs written with the initial values of data.

## 2. Procedure for replacing memory ICs

| PROCEDURE  |
|--|
| <p>(1) <b>Power off</b><br/>Switch off the power and disconnect the power plug from the wall outlet.</p>   |
| <p>(2) <b>Replace the memory IC</b><br/>Be sure to use memory ICs written with the initial data values.</p>  |
| <p>(3) <b>Power on</b><br/>Connect the power plug into the wall outlet and switch the power on.</p>  |
| <p>(4) <b>Check and set SYSTEM CONSTANT SET</b></p> <ul style="list-style-type: none"> <li>● It must not adjust without adjustment signals.</li> </ul> <ol style="list-style-type: none"> <li>1) Press the <b>INFORMATION</b> key and the <b>MUTING</b> key of the REMOTE CONTROL UNIT simultaneously.</li> <li>2) The SERVICE MENU screen of Fig. 1 will be displayed.</li> <li>3) While the SERVICE MENU is displayed, again press the <b>INFORMATION</b> key and <b>MUTING</b> key simultaneously, and the SYSTEM CONSTANT SET screen of Fig. 2 will be displayed.</li> <li>4) Check the setting values of the SYSTEM CONSTANT SET of Table 1. If the value is different, select the setting item with the <b>FUNCTION UP/DOWN</b> key, and set the correct value with the <b>FUNCTION LEFT/RIGHT</b> key.</li> <li>5) Press the <b>OK</b> key to memorize the setting value.</li> <li>6) Press the <b>INFORMATION</b> key twice, and return to the normal screen.</li> </ol> |
| <p>(5) <b>Receive channel setting</b><br/>Refer to the OPERATING INSTRUCTIONS, and set the receive channels as described.</p>  |
| <p>(6) <b>User settings</b><br/>Check the user setting items according to Table 2. Where these do not agree, refer to the OPERATING INSTRUCTIONS.</p>  |
| <p>(7) <b>SERVICE MENU setting</b><br/>Verify what to set in the <b>SERVICE MENU</b>, and set whatever is necessary.<br/>For setting, refer to the SERVICE ADJUSTMENTS.</p>  |

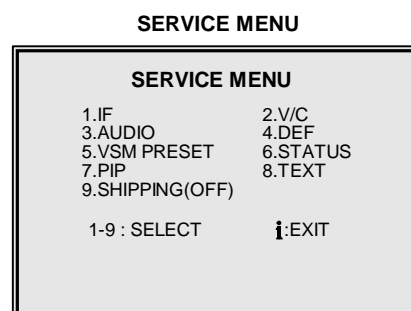


Fig.1

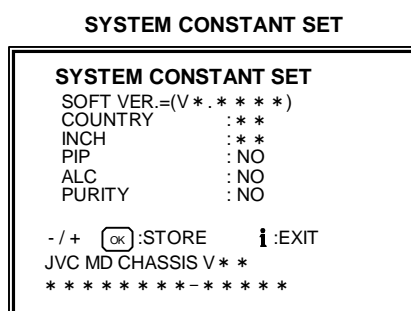
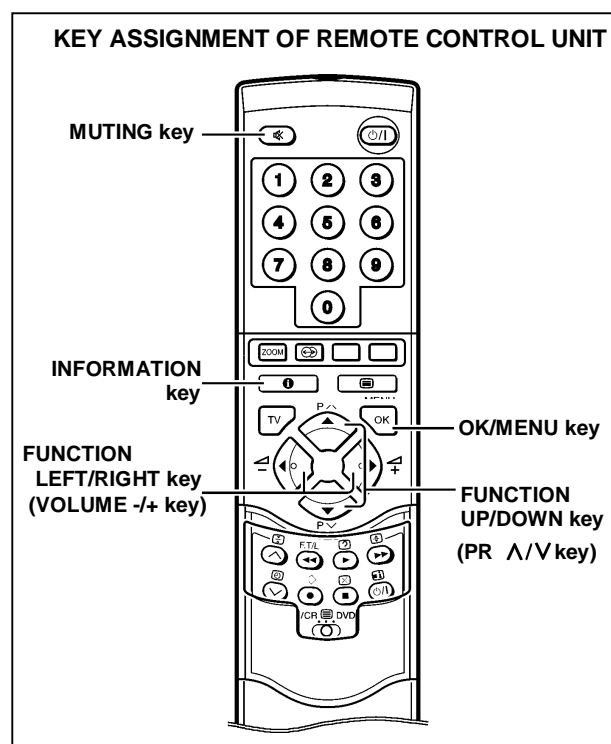


Fig.2



**SETTING VALUES OF SYSTEM CONSTANT SET (TABLE 1)**

| Setting item | Setting content               | Setting value            |            |
|--------------|-------------------------------|--------------------------|------------|
|              |                               | AV-32WL1EU<br>AV-32WL1EI | AV-32WL1EK |
| COUNTRY      | → EK → EN → EP → ER → EU/EI → | EU / EI                  | EK         |
| INCH         | → 28 → 32 → 29 →              | 32                       | ←          |
| PIP          | → YES → NO →                  | NO                       | ←          |
| ALC          | → YES → NO →                  | NO                       | ←          |
| PURITY       | → YES → NO →                  | NO                       | ←          |

**USER SETTING VALUES (TABLE 2)**

| Setting item  | Setting value  | Setting item  | Setting value                                  |
|---|--|---|--|
| SUB POWER   | ON   | VOLUME  | Appropriate sound volume                       |
| CHANNEL   | 1 POSITION   | DISPLAY   | CHANNEL NUMBER DISPLAY                         |
| CHANNEL PRESET  | See OPERATING INSTRUCTIONS.  | ZOOM  | REGULAR  |
| PICTURE SETTING   |  | EXT SETTING   |  |
| TINT<br>CONTRAST<br>BRIGHT<br>SHARP<br>COLOUR<br>HUE<br>ECO MODE                | COOL<br><br>All CENTER<br><br>OFF  | DUBBING   | EXT1→EXT2                                      |
| PICTURE FEATURES  |  | FEATURES  |  |
| DIGITAL VNR<br>DigiPure<br>COLOUR SYSTEM<br><br>4:3 AUTO ASPECT<br>PICTURE TILT | AUTO<br>AUTO<br>TV : According to preset CH<br>EXT : AUTO<br>PANORAMIC<br>CENTER | SLEEP TIMER<br>BLUE BACK<br>CHILD LOCK<br><br>DECORDER(EXT-2) | OFF<br>ON<br>ID : No.0000<br>ALL CH OFF<br>OFF |
| SOUND SETTING   |  | INSTALL   |  |
| STEREO / I · II<br>BASS<br>TREBLE<br>BALANCE<br>BBE<br>HYPER SOUND<br>SPEAKER   | ⊖ (STEREO SOUND)<br><br>CENTER<br><br>ON<br>OFF<br>ON                            | LANGUAGE<br>AUTO PROGRAM<br>EDIT / MANUAL                     | ENGLISH  |
|   |  | INDEX   | _____  |
|   |  | DEMO  | _____  |

**SERVICE MENU SETTING ITEMS (TABLE 3)**

| Setting item                       | Setting value   | Setting item                                | Setting value  |
|------------------------------------|---|---|--|
| 1. IF                              | 1.VCO<br>2.DELAY POINT<br>3.LV LEVEL  | 5. VSM PRESET<br>[ COOL<br>NORMAL<br>WARM ] | 1. BRIGHT<br>2. CONT<br>3. COLOUR<br>4. SHARP<br>5. HUE<br>6. WDR R<br>7. WDR G<br>8. WDR B<br>9. BASS<br>10. TREBLE |
| 2. V / C                           | 1. RGB BLK<br>2. WDR R<br>3. WDR G<br>4. WDR B<br>5. CUT R<br>6. CUT G<br>7. CUT B<br>8. BRIGHT<br>9. CONT.<br>10. COLOUR<br>11. HUE<br>12. CONT LIMIT  | 6. STATUS<br><i>(Do not adjust)</i>         | VPS<br>PDC 8/30/L<br>AUTO<br>SUB<br>SUB VER<br>MTEXT   |
| 3. AUDIO<br><i>(Do not adjust)</i> | 1. CONC LIMIT<br>2. A2 ID THR   | 7. PIP<br><i>(Do not adjust)</i>            | This model doesn't have PIP function. It is no requirement for adjustment.   |
| 4. DEF.                            | 1. V-SHIFT<br>2. V-SIZE<br>3. H-CENT<br>4. H-SIZE<br>5. EW-PIN<br>6. TRAPEZ<br>7. COR-UP<br>8. COR-LO<br>9. ANGLE<br>10. BOW<br>11. V-S.CR<br>12. V-LIN | 8. TEXT                                     | 1.TEXT MONO H  |
|                                    |   | 9. SHIPPING<br><i>(Do not adjust)</i>       | OFF<br>↑<br>↓<br>ON  |

# SERVICE ADJUSTMENTS

## BEFORE STARTING SERVICE ADJUSTMENT

1. There are 2 ways of adjusting this TV: One is with the **REMOTE CONTROL UNIT** and the other is the conventional method using adjustment parts and components.
2. The adjustment with the **REMOTE CONTROL UNIT** is made on the basis of the initial setting values. The setting values which adjust the screen to its optimum condition may differ from the initial setting values.
3. Make sure that connection is correctly made to AC power source.
4. Turn on the power of the set and equipment before use, and start the adjustment procedures after waiting at least 30 minutes.
5. Unless otherwise specified, prepare the most suitable reception or input signal for adjustment.
6. **Never touch any adjustment parts, which are not specified in the list for this adjustment variable resistors, transforms, condensers, etc.**
7. Preparation for adjustment (presetting):  
Unless otherwise specified in the adjustment instructions, preset the following functions with the **REMOTE CONTROL UNIT**:

User mode setting condition

|                      |           |
|----------------------|-----------|
| PICTURE SETTING TINT | COOL      |
| CONTRAST             | CENTER    |
| BRIGHT               | CENTER    |
| SHARP                | CENTER    |
| COLOUR               | CENTER    |
| HUE                  | CENTER    |
| DIGITAL VNR          | OFF       |
| DIGI PURE            | AUTO      |
| 4:3 ASPECT           | PANORAMIC |
| PICTURE TILT         | CENTER    |
| BBE                  | OFF       |
| HYPER SOUND          | OFF       |
| SPEAKER              | ON        |
| ZOOM                 | FULL      |
| SLEEP TIMER          | OFF       |
| BLUE BACK            | OFF       |
| ECO MODE             | OFF       |

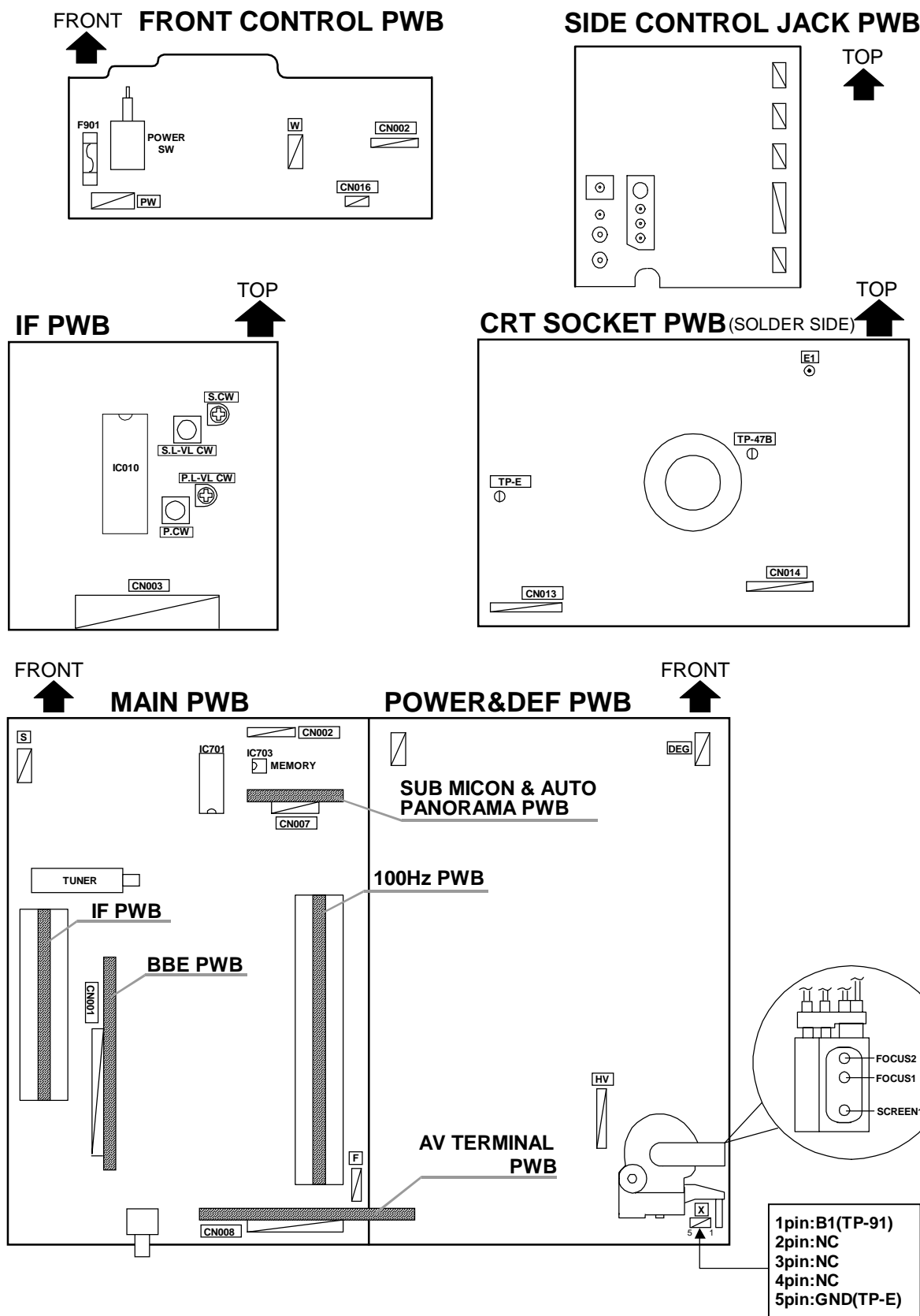
## MEASURING INSTRUMENT AND FIXTURES

1. DC voltmeter (or digital voltmeter)
2. Oscilloscope
3. Signal generator (Pattern generator) [PAL / SECAM / NTSC]
4. Remote control unit

## ADJUSTMENT ITEMS

- CHECK ITEMS BEFORE ADJUSTMENT
- FOCUS ADJUSTMENT
- IF CIRCUIT ADJUSTMENT
- VSM PRESETTING
- VIDEO / CHROMA CIRCUIT ADJUSTMENT
- DEFLECTION CIRCUIT ADJUSTMENT
- TEXT CIRCUIT ADJUSTMENT
- AUDIO CIRCUIT ADJUSTMENT (Do not adjust)

## ADJUSTMENT LOCATIONS



## BASIC OPERATION OF SERVICE MENU

### 1. The adjustment using SERVICE MENU

The following adjustment items use the SERVICE MENU in the series of the adjustment. The adjustments are made on the basis of the initial setting values. The adjustment values which adjust the screen to the optimum condition can be different from the initial setting values. With the SERVICE MENU, various settings can be made, and they are broadly classified in the following items of settings.

|                  |  |
|------------------|--|
| IF .....         | Adjustment of the IF circuits.   |
| V/C .....        | Adjustment of the VIDEO/CHROMA circuit.  |
| AUDIO .....      | Adjustment of the sound circuit <b>[Do not adjust]</b> .   |
| DEF .....        | Adjustment of the DEFLECTION circuit for each aspect mode given below.                                     |
|                  | FULL (100/120Hz) 16:9 ZOOM SUBTITLE (100/120Hz)  |
|                  | PANORAMIC (100/120Hz)  |
| VSM PRESET ..... | Adjustment of the initial setting values of VSM condition as COOL, NORMAL and WARM.                        |
|                  | (VSM : Video Status Memory)  |
| STATUS .....     | Shows the monitor of the VPS <b>[Do not adjust]</b> .  |
|                  | (VPS : Video Program System)   |
| PIP .....        | Adjustment of the PIP circuit. But this model does not build in PIP system, because <b>do not adjust</b> . |
| TEXT .....       | Adjustment of the TEXT mode.   |
| SHIPPING .....   | Setting the user setting values to initial condition <b>[Do not adjust]</b> .                              |

### 2. Key operation of the SERVICE MENU

#### [Enter to SERVICE MENU]

Press the **INFORMATION** key and the **MUTING** key of the REMOTE CONTROL UNIT simultaneously. Then enter the SERVICE MENU mode as shown in Fig.1.

#### [Exit from SERVICE MENU]

When complete the adjustment work, press the **INFORMATION** key to return to the SERVICE MENU.

And then press the **INFORMATION** key again, return to the normal screen.

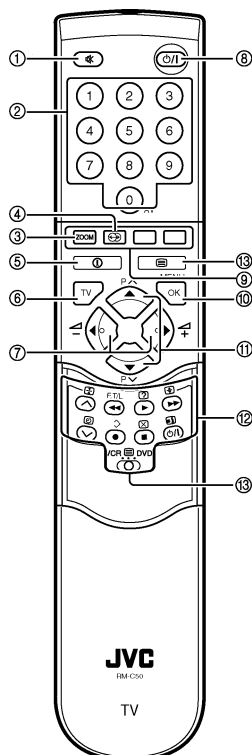
#### [Select from main menu]

In main SERVICE MENU, press the number (1~9) key of the remote control unit, to select any of the adjustment items.

The colours which selected item characters are changed.

#### SERVICE MENU

| SERVICE MENU    |          |
|-----------------|----------|
| 1.IF            | 2.V/C    |
| 3.AUDIO         | 4.DEF    |
| 5.VSM PRESET    | 6.STATUS |
| 7.PIP           | 8.TEXT   |
| 9.SHIPPING(OFF) |          |
| 1-9 : SELECT    | i:EXIT   |



- ①MUTING key
- ②NUMBER key
- ③ZOOM key
- ④HYPER SOUND key
- ⑤INFORMATION key
- ⑥TV key
- ⑦VOLUME +/- key (FUNCTION LEFT/RIGHT key)
- ⑧STANDBY key
- ⑨COLOUR buttons key
- ⑩OK / MENU key
- ⑪PR / V key (FUNCTION UP/DOWN key)
- ⑫VCR/TELETEXT/DVD control key
- ⑬VCR/TELETEXT/DVD key

## [Method of setting]

### **1. IF**

#### [1. VCO]

- ① 1 Key ..... Select **1.IF**.
- ② 1 Key ..... Select **1.VCO**
- ③ The VCO (CW) screen will be displayed a allow mark when the AFC voltage is at a certain level.
- ④ INFORMATION Key ..... As you press this twice, you will return to the **SERVICE MENU**.

#### [2. DELAY POINT]

- ① 1 Key ..... Select **1.IF**.
- ② 2 Key ..... Select **2.DELAY POINT**.
- ③ FUNCTION LEFT/RIGHT ..... Set (adjust) the setting values of the setting items.
- ④ OK Key ..... Memorize the set value.  
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF keys - if you do, the values will not be stored in memory.)
- ⑤ INFORMATION Key ..... When this is pressed twice, you will return to the SERVICE MENU.

#### [3. LV LEVEL]

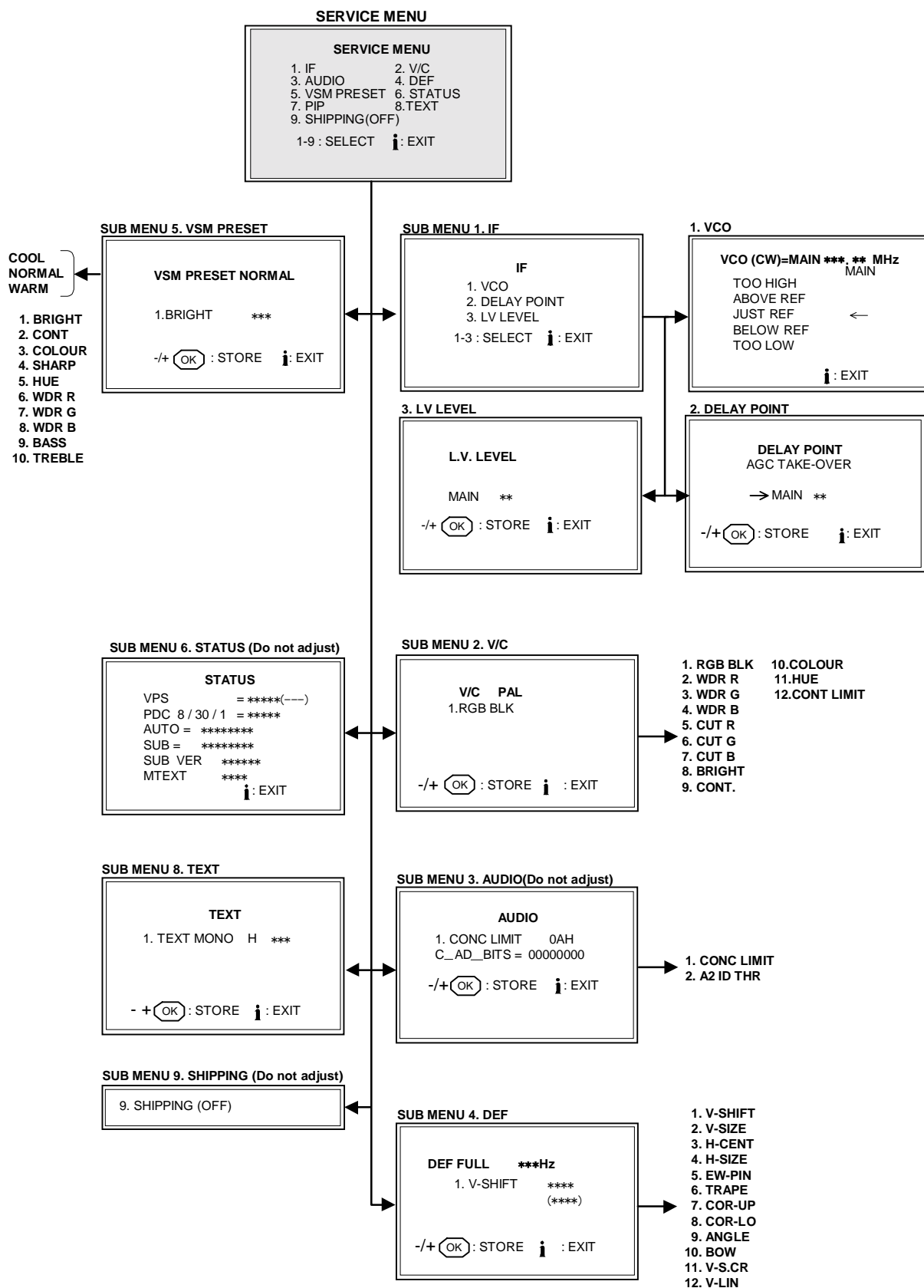
- ① 1 Key ..... Select **1.IF**.
- ② 3 Key ..... Select **3.LV LEVEL**.
- ③ FUNCTION LEFT/RIGHT Key ..... Set (adjust) the setting values of the setting items.
- ④ OK Key ..... Memorize the set value.  
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF keys - if you do, the values will not be stored in memory.)
- ⑤ INFORMATION Key ..... When this is pressed twice, you will return to the SERVICE MENU.

### **2.V/C, 4.DEF, 5.VSM PRESET and 8.TEXT**

- ① 2, 4, 5, 8 Key ..... Select one from **2. V/C, 4. DEF, 5. VSM PRESET and 8.TEXT**.
- ② FUNCTION UP/DOWN Key ..... Select setting items.
- ③ FUNCTION LEFT/RIGHT ..... Set (adjust) the setting values of the setting items.  
(When 1.RGB BLK of 2.V/C is selected, press the FUNCTION-/ + key, and the whole will change to a black picture. Press the FUNCTION-/ + or 2 key, and the screen will return to the original screen.)
- ④ OK Key ..... Memorize the setting value.  
(Before storing the setting values in memory, do not press the CH, TV, POWER ON / OFF key - if you do, the values will not be stored in memory.)
- ⑤ INFORMATION Key ..... Return to the **SERVICE MENU** screen.

### **3.AUDIO, 6.STATUS and 9.SHIPPING**

- 3.AUDIO (**Do not adjust**) ..... It is no requirement to adjustment.
- 6.STATUS (**Do not adjust**) ..... This mode displayed monitor of VPS. (Video Program Systems)
- 9.SHIPPING (**Do not adjust**) ..... This mode is set the initial setting value of user setting values, you need not to use it for service.



# ADJUSTMENT

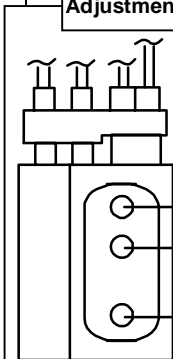
## CHECK ITEMS BEFORE ADJUSTMENT

| Item                     | Measuring instrument                       | Test point   | Adjustment part | Description   |
|--------------------------|--|--|-----------------|---|
| Check of B1 Power supply | Signal generator<br><br>DC voltmeter       | TP-91(B1)<br>TP-E(GND ↗)<br>[X connector on POWER & DEF PWB] |                 | <ol style="list-style-type: none"> <li>1. Receive any broadcast.</li> <li>2. Select 2.V/C from the SERVICE MENU.</li> <li>3. Select 1.RGB BLK with FUNCTION UP/DOWN key.</li> <li>4. Press the FUNCTION LEFT/RIGHT key, the whole black screen display.</li> <li>5. Connect a DC voltmeter to TP-91(B1) and TP-E(GND ↗).</li> <li>6. Make sure that the voltage is <math>DC139.0V \pm 2.0V</math>.</li> </ol> |
| Check of High voltage    | Signal generator<br><br>High-voltage meter | CRT anode  |                 | <ol style="list-style-type: none"> <li>1. Receive any broadcast.</li> <li>2. Select 2.V/C from the SERVICE MENU.</li> <li>3. Select 1.RGB BLK with FUNCTION UP/DOWN key.</li> <li>4. Press the FUNCTION LEFT/RIGHT key, the whole black screen display.</li> <li>5. Connect a High-voltage meter to CRT ANODE</li> <li>6. Make sure that the voltage is the <math>31.5kV^{+1.0kV}_{-1.5kV}</math>.</li> </ol> |

## FOCUS ADJUSTMENT

| Item                | Measuring instrument | Test point | Adjustment part                | Description  |
|---------------------|----------------------|------------|--------------------------------|--|
| Adjustment of FOCUS | Signal generator     |            | FOCUS 1<br>FOCUS 2<br>[In HVT] | <ol style="list-style-type: none"><li>1. Receive a cross-hatch signal. Change the ASPECT mode to FULL.</li><li>2. By turning the FOCUS 1 VR, adjust the picture so that the 6th vertical line from the left side of the cross-hatch picture becomes thinnest.</li><li>3. By turning the FOCUS 2 VR, adjust the picture so that the 4th horizontal line from the upper side of the cross-hatch picture becomes thinnest.</li><li>4. Carry out adjustment by repeating the steps 2 and 3 above.</li><li>5. Make sure that when the screen is darkened, the lines remain in good focus.</li></ol> |

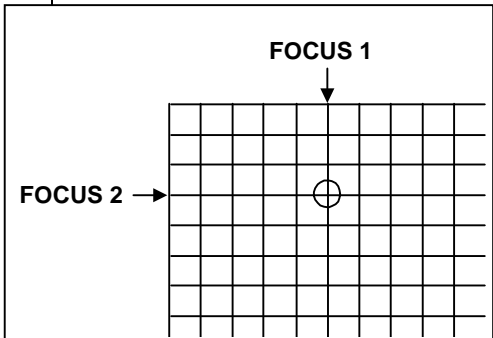
Adjustment VRs in HVT



FOCUS2

FOCUS1

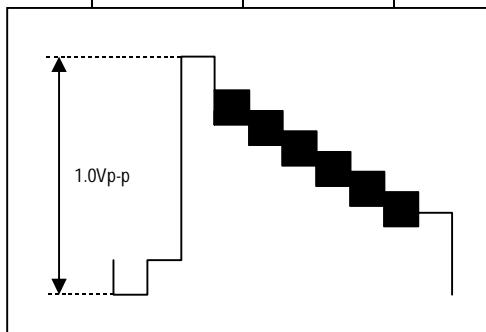
SCREEN1



## IF CIRCUIT Adjustment

| Item  | Measuring instrument | Test point            | Adjustment part                                  | Description  |                                |                |                       |                             |          |    |   |   |                 |   |   |   |                |   |   |   |                 |   |   |   |
|---|----------------------|-----------------------|--|--|--------------------------------|----------------|-----------------------|-----------------------------|----------|----|---|---|-----------------|---|---|---|----------------|---|---|---|-----------------|---|---|---|
| Adjustment of VCO   | Remote control unit  |                       | P.CW TRANSF.<br>P.L_VL CW TRANSF.<br>[On IF PWB] | <ul style="list-style-type: none"><li>Under normal conditions, it is no adjustment required.</li><li>It must not adjust without signal.</li></ul> <ol style="list-style-type: none"><li>Select 1.IF from the SERVICE MENU.</li><li>Press 1 key and select 1.VCO.</li><li>Receive any broadcast with the remote control unit.</li><li>Turn the core of P. CW TRANSF. until the arrow mark (←) on the screen points TOO HIGH (Step 1).</li><li>Turn the core of P. CW TRANSF. until the arrow mark (←) on the screen points TOO LOW (Step 2).</li><li>Then slowly turn back the core of P. CW TRANSF. until the arrow mark (←) on the screen points JUST REF (Step 3).</li><li>Press the INFORMATION key three times to return to normal screen.</li><li>Perform CHANNEL PRESET again, and make sure that each broadcast is being received properly.</li></ol> <p>[AV-32WL1EU/AV-32WL1EI]</p> <ol style="list-style-type: none"><li>Press the FUNCTION UP/DOWN key on the remote control unit, and receive the SECAM L broadcast.</li><li>Turn the core of P.L_VL CW TRANSF. to adjust as same steps as 4-6 above.</li></ol> |                                |                |                       |                             |          |    |   |   |                 |   |   |   |                |   |   |   |                 |   |   |   |
|   |                      |                       |  | <div><div>VCO(CW)=MAIN ***. ** MHz ← fv</div><div>MAIN</div><div>TOO HIGH<br/>ABOVE REF<br/>JUST REF<br/>BELOW REF<br/>TOO LOW</div><div>←</div><div>i : EXIT</div></div> <table><tr><th>Screen display</th><th>Step 1</th><th>Step 2</th><th>Step 3</th></tr><tr><td>TOO HIGH</td><td>←</td><td>—</td><td>—</td></tr><tr><td>ABOVE REFERENCE</td><td>—</td><td>—</td><td>—</td></tr><tr><td>JUST REFERENCE</td><td>—</td><td>—</td><td>←</td></tr><tr><td>BELOW REFERENCE</td><td>—</td><td>—</td><td>—</td></tr><tr><td>TOO LOW</td><td>—</td><td>←</td><td>—</td></tr></table>  | Screen display                 | Step 1         | Step 2                | Step 3                      | TOO HIGH | ←  | — | — | ABOVE REFERENCE | — | — | — | JUST REFERENCE | — | — | ← | BELOW REFERENCE | — | — | — |
| Screen display  | Step 1               | Step 2                | Step 3   |  |                                |                |                       |                             |          |    |   |   |                 |   |   |   |                |   |   |   |                 |   |   |   |
| TOO HIGH  | ←                    | —                     | —  |  |                                |                |                       |                             |          |    |   |   |                 |   |   |   |                |   |   |   |                 |   |   |   |
| ABOVE REFERENCE   | —                    | —                     | —  |  |                                |                |                       |                             |          |    |   |   |                 |   |   |   |                |   |   |   |                 |   |   |   |
| JUST REFERENCE  | —                    | —                     | ←  |  |                                |                |                       |                             |          |    |   |   |                 |   |   |   |                |   |   |   |                 |   |   |   |
| BELOW REFERENCE   | —                    | —                     | —  |  |                                |                |                       |                             |          |    |   |   |                 |   |   |   |                |   |   |   |                 |   |   |   |
| TOO LOW   | —                    | ←                     | —  |  |                                |                |                       |                             |          |    |   |   |                 |   |   |   |                |   |   |   |                 |   |   |   |
| Adjustment of DELAY POINT   | Remote control unit  |                       | 2. DELAY POINT (AGC TAKE-OVER)                   | <ol style="list-style-type: none"><li>Receive a black and white signal (colour off).</li><li>Select 1.IF from the SERVICE MENU.</li><li>Select 2.DELAY POINT by pressing the 2 key on the remote control unit.</li><li>Adjust the FUNCTION LEFT/RIGHT key until video noise disappears.</li><li>Press the OK key and memorize the set value.</li><li>Turn to other channels and make sure that there are no irregularities.</li></ol>  |                                |                |                       |                             |          |    |   |   |                 |   |   |   |                |   |   |   |                 |   |   |   |
| <table><tr><th>Setting item (Adjustment item)</th><th>Variable range</th><th>Initial setting value</th></tr><tr><td>DELAY POINT (AGC TAKE-OVER)</td><td>0~63</td><td>35</td></tr></table> |                      |                       |  |  | Setting item (Adjustment item) | Variable range | Initial setting value | DELAY POINT (AGC TAKE-OVER) | 0~63     | 35 |   |   |                 |   |   |   |                |   |   |   |                 |   |   |   |
| Setting item (Adjustment item)  | Variable range       | Initial setting value |  |  |                                |                |                       |                             |          |    |   |   |                 |   |   |   |                |   |   |   |                 |   |   |   |
| DELAY POINT (AGC TAKE-OVER)   | 0~63                 | 35                    |  |  |                                |                |                       |                             |          |    |   |   |                 |   |   |   |                |   |   |   |                 |   |   |   |

| Item  | Measuring instrument   | Test point                  | Adjustment part | Description  |
|---|--|-----------------------------|-----------------|--|
| Adjustment of LV LEVEL<br>[Except for AV-32WL1EK] | Signal generator<br>Oscilloscope [H-rate]<br>Remote control unit | EXT-1 ①9 pin<br>(Video OUT) | 3. LV LEVEL     | <ol style="list-style-type: none"> <li>1. Receive a SECAM-L full field colour bar signal (100% white).</li> <li>2. Connect an oscilloscope terminated 75 <math>\Omega</math> to EXT-1 terminal of ①9 pin (Video out).</li> <li>3. Select 1. IF from the SERVICE MENU.</li> <li>4. Press 3 key and select 3.LV LEVEL.</li> <li>5. Adjust the LV LEVEL by FUNCTION LRFT/RIGHT key and make the wave detector output 1.0Vp-p.</li> <li>6. Press the OK key and memorize the set value.</li> </ol> |



## VSM PRESETTING

| Item                         | Measuring instrument | Test point | Adjustment parts   | Description  |
|------------------------------|----------------------|------------|--|--|
| Setting of VSM PRESET ADJUST | Remote control unit  |            | <ol style="list-style-type: none"> <li>1. BRIGHT</li> <li>2. CONT</li> <li>3. COLOUR</li> <li>4. SHARP</li> <li>5. HUE</li> <li>6. WDR R</li> <li>7. WDR G</li> <li>8. WDR B</li> <li>9. BASS</li> <li>10. TREBLE</li> </ol> | <ol style="list-style-type: none"> <li>1. Select the COOL mode of the PICTURE SETTING of TINT in the MENU by the remote control unit.</li> <li>2. Select 5.VSM PRESET from the SERVICE MENU.</li> <li>3. Adjust the FUNCTION UP/DOWN and LEFT/RIGHT key to bring the set values of 1.BRIGHT~10.TREBLE to the values shown in the table below.</li> <li>4. Press the OK key and memorize the set value.</li> <li>5. Respectively select the VSM PRESET mode for NORMAL and WARM, and make similar adjustment as in 3 above.</li> <li>6. Press the MENU key and memorize the set value.</li> </ol> <p>* Refer to OPERATING INSTRUCTIONS for the PICTURE SETTING.</p> |

### SETTING VALUES OF VSM PRESET

| Setting item | PICTURE MODE | COOL | NORMAL | WARM |
|--------------|--------------|------|--------|------|
| 1. BRIGHT    |              | -1   | +0     | +0   |
| 2. CONT.     |              | +12  | +0     | -8   |
| 3. COLOUR    |              | +1   | -1     | -2   |
| 4. SHARP     |              | +3   | +0     | +0   |
| 5. HUE       |              | +0   | +0     | +0   |
| 6. WDR R     |              | -16  | +5     | +11  |
| 7. WDR G     |              | -4   | +6     | +5   |
| 8. WDR B     |              | +2   | +0     | -6   |
| 9. BASS      |              | +0   | +0     | +0   |
| 10.TREBLE    |              | +0   | +0     | +0   |

## VIDEO/CHROMA CIRCUIT ADJUSTMENT

The setting (adjustment) using the REMOTE CONTROL UNIT is made on the basis of the initial setting values.  
The setting values which adjust the screen to the optimum condition can be different from the initial setting values.

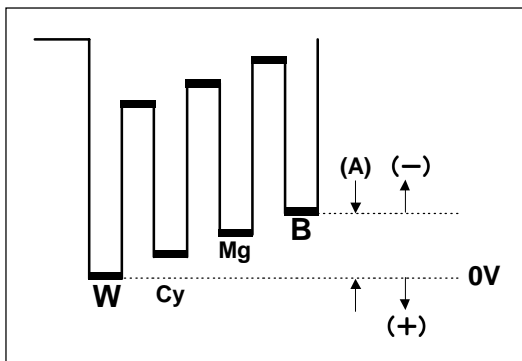
The setting values of the SECAM mode except for the AV-32WL1EK.

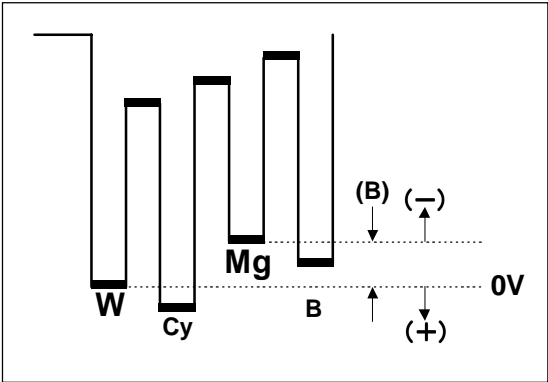
| Setting Item<br>(Adjustment Item ) | Initial setting value |                        | Colour system<br>Setting item | Initial setting value |                        |
|------------------------------------|-----------------------|------------------------|-------------------------------|-----------------------|------------------------|
|                                    | PAL / SECAM           | NTSC 3.58<br>NTSC 4.43 |                               | PAL / SECAM           | NTSC 3.58<br>NTSC 4.43 |
| 1.RGB BLK                          | —                     | —                      | 7.CUT B                       | +000                  | —                      |
| 2.WDR R                            | +010                  | —                      | 8.BRIGHT                      | +000                  | —                      |
| 3.WDR G                            | -007                  | —                      | 9.CONT                        | +012                  | —                      |
| 4.WDR B (Do not adjust)            | +000                  | —                      | 10.COLOUR                     | -008                  | -011                   |
| 5.CUT R                            | +000                  | —                      | 11.HUE                        | —                     | -002                   |
| 6.CUT G                            | +000                  | —                      | 12.CONT. LIMIT(Do not adjust) | +001                  | —                      |

| Item                               | Measuring instrument                        | Test point | Adjustment part                                     | Description  |
|------------------------------------|---|------------|---|--|
| <b>Adjustment of WHITE BALANCE</b> | Signal generator<br><br>Remote control unit |            | 2.WDR R<br>3.WDR G<br>5.CUT R<br>6.CUT G<br>7.CUT B | <ul style="list-style-type: none"> <li>● Set the PICTURE SETTING of TINT to NORMAL.</li> </ul> <ol style="list-style-type: none"> <li>1. Receive the black and white signal(colour off).</li> <li>2. Select 2. V/C from the SERVICE MENU.</li> <li>3. Modify 2. WDR R and 3.WDR G data to adjust the white balance ( high light ).</li> <li>4. Modify 5. CUT R, 6. CUT G and 7. CUT B data to adjust the white balance ( low light).</li> <li>5. Press the OK key and memorize the set value.</li> </ol> |
| <b>Adjustment of SUB BRIGHT</b>    | Remote control unit                         |            | 8.BRIGHT  | <ol style="list-style-type: none"> <li>1. Receive any broadcast.</li> <li>2. Select 2.V/C from the SERVICE MENU.</li> <li>3. Select 8.BRIGHT with the FUNCTION UP/DOWN key.</li> <li>4. Set the initial setting value with the FUNCTION LEFT/RIGHT key.</li> <li>5. If the brightness is not the best with the initial setting value, make fine adjustment until you get the best brightness.</li> <li>6. Press the OK key and memorize the set value.</li> </ol>  |
| <b>Adjustment of SUB CONT.</b>     | Remote control unit                         |            | 9.CONT  | <ol style="list-style-type: none"> <li>1. Receive any broadcast.</li> <li>2. Select 2.V/C from the SERVICE MENU.</li> <li>3. Select 9.CONT with the FUNCTION UP/DOWN key.</li> <li>4. Set the initial setting value with the FUNCTION LEFT/RIGHT key.</li> <li>5. If the contrast is not the best with the initial setting value, make fine adjustment until you get the best contrast.</li> <li>6. Press the OK key and memorize the set value.</li> </ol>  |

| Item                       | Measuring instrument | Test point | Adjustment part                             | Description   |
|----------------------------|----------------------|------------|---|---|
| Adjustment of SUB COLOUR I | Remote control unit  |            | 10.COLOUR                                   | [Method of adjustment without measuring instrument]   |
|                            |                      |            | PAL COLOUR                                  | 1. Receive PAL broadcast.<br>2. Select 2.V/C from the SERVICE MENU.<br>3. Select 10.COLOUR with the FUNCTION UP/DOWN key.<br>4. Set the initial setting value for PAL COLOUR with the FUNCTION LEFT/RIGHT key.<br>5. If the colour is not the best with the initial set value, make fine adjustment until you get the best colour.<br>6. Press the OK key and memorize the set value. |
|                            |                      |            | SECAM COLOUR<br>[Except for the AV-32WL1EK] | 1. Receive a SECAM broadcast. Make fine adjustment of SECAM COLOUR in the same manner as for above.   |
|                            |                      |            | NTSC 3.58 COLOUR                            | 1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal from the EXT terminal.<br>2. Make similar fine adjustment of NTSC 3.58 COLOUR in the same manner as for above.   |
|                            |                      |            | NTSC 4.43 COLOUR                            | 1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.   |

| Item                        | Measuring instrument | Test point                            | Adjustment part                             | Description   |
|-----------------------------|----------------------|---------------------------------------|---|---|
| Adjustment of SUB COLOUR II | Signal generator     | TP-47B<br>TP-E(↗)<br>[CRT SOCKET PWB] | 10.COLOUR                                   | [Method of adjustment using measuring instrument]   |
|                             | Oscilloscope         |                                       | PAL COLOUR                                  | <ol style="list-style-type: none"> <li>1. Receive the PAL full field colour bar signal(75% white).</li> <li>2. Select 2.V/C from the SERVICE MENU.</li> <li>3. Select 10.COLOUR with the FUNCTION UP/DOWN key.</li> <li>4. Set the initial setting value of PAL COLOUR with the FUNCTION LEFT/RIGHT key.</li> <li>5. Connect the oscilloscope between TP-47B and TP-E</li> <li>6. Adjust PAL COLOUR and bring the value of (A) in the illustration to <b>-3V</b> (voltage difference between white (w) and blue (B)).</li> <li>7. Press the OK key and memorize the setting value.</li> </ol> |
|                             | Remote control unit  |                                       |   |   |
|                             |                      |                                       | SECAM COLOUR<br>[Except for the AV-32WL1EK] | <ol style="list-style-type: none"> <li>1. Receive the SECAM full field colour bar signal(75% white).</li> <li>2. Set the initial setting value of SECAM COLOUR with the FUNCTION LEFT/RIGHT key.</li> <li>3. Adjust SECAM COLOUR and bring the value of (A) of the illustration to <b>-6V</b>(W~B).</li> <li>4. Press the OK key and memorize the setting value.</li> </ol>   |
|                             |                      |                                       | NTSC COLOUR                                 | <ol style="list-style-type: none"> <li>1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal.</li> <li>2. Set the initial setting value of NTSC 3.58 COLOUR with the FUNCTION LEFT/RIGHT key.</li> <li>3. Adjust NTSC 3.58 COLOUR and bring the value of (A) of the illustration to <b>-3V</b>(W~B).</li> <li>4. Press the OK key and memorize the setting value.</li> </ol>  |
|                             |                      |                                       | NTSC 4.43 COLOUR                            | <ol style="list-style-type: none"> <li>1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.</li> </ol>   |



| Item  | Measuring instrument | Test point        | Adjustment part | Description   |
|---|----------------------|-------------------|-----------------|---|
| Adjustment of SUB HUE I   | Remote control unit  |                   | 11.HUE          | <b>[Method of adjustment without measuring instrument]</b>  |
|   |                      |                   | NTSC 3.58 HUE   | <ol style="list-style-type: none"> <li>1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal.</li> <li>2. Select 2.V/C from the SERVICE MENU.</li> <li>3. Select 11.HUE with the FUNCTION UP/DOWN key.</li> <li>4. Set the initial setting value of NTSC 3.58 HUE with the FUNCTION LEFT/RIGHT key.</li> <li>5. If you cannot get the best hue with the initial setting value, make fine adjustment until you get the best hue.</li> <li>6. Press the OK key and memorize the set value.</li> </ol>   |
|   |                      |                   | NTSC 4.43 HUE   | <ol style="list-style-type: none"> <li>1. When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.</li> </ol>   |
| Adjustment of SUB HUE II  | Signal generator     | TP-47B<br>TP-E(↓) | 11.HUE          | <b>[Method of adjustment using measuring instrument]</b>  |
|   | Oscilloscope         | [CRT SOCKET PWB]  | NTSC 3.58 HUE   |   |
|   | Remote control unit  |                   |                 |   |
|  |                      |                   |                 | <ol style="list-style-type: none"> <li>1. Input a NTSC 3.58MHz COMPOSITE VIDEO signal (full field colour bar with 75% white) from the EXT terminal.</li> <li>2. Select 2.V/C from the SERVICE MENU.</li> <li>3. Select 11.HUE with the FUNCTION UP/DOWN key.</li> <li>4. Set the initial setting value of NTSC 3.58 HUE with the FUNCTION LEFT/RIGHT key.</li> <li>5. Connect the oscilloscope between TP-47B and TP-E</li> <li>6. Adjust NTSC 3.58 HUE to bring the value of (B) in the illustration to <b>-13V</b> (voltage difference between white (W) and magenta(Mg)).</li> <li>7. Press the OK key and memorize the setting value</li> </ol> |
|   |                      |                   | NTSC 4.43 HUE   | When NTSC 3.58 is set, NTSC 4.43 will be automatically set at the respective values.  |

## DEFLECTION CIRCUIT ADJUSTMENT

There are 2 modes of the adjustment ( 1 ) 100Hz mode ( ①FULL ②PANORAMIC, ③16:9 ZOOM SUBTITLE ), ( 2 ) 120Hz mode ( each aspect mode ) . . . . . depending upon the kind of signals ( vertical frequency 100Hz / 120Hz ).

- When the 100Hz FULL mode has been established, the setting of the other modes will be done automatically.
- However, if the picture quality has not been optimized, adjust each mode again, respectively.
- The adjustment using the remote control unit is made on the basis of the initial setting values.
- The setting values which adjust the screen to the optimum condition can be different from the initial setting values.
- Regular and Zoom switching is conducted not by the Deflection circuit, but by the 100 Hz PWB. Therefore, the deflection system cannot be adjusted in these modes.

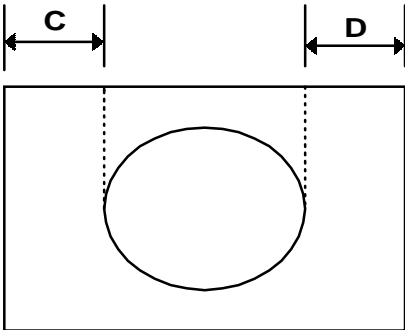
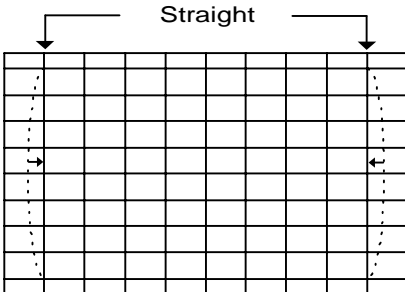
### INITIAL SETTING VALUE OF THE DEFLECTION CIRCUITS

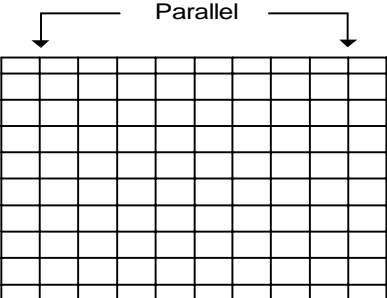
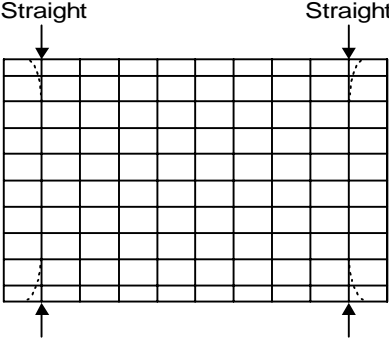
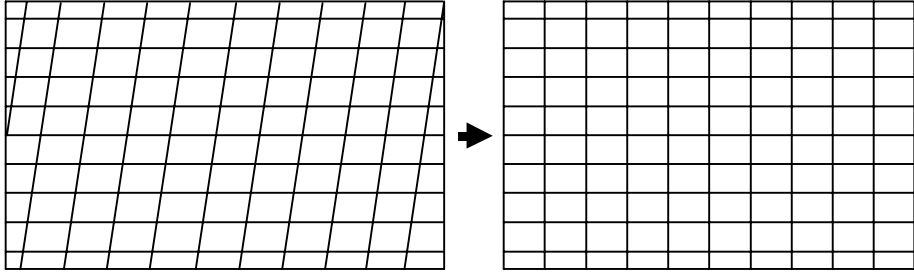
| Setting item | Adjustment name                   | FULL  |       | PANORAMIC |       | 16 : 9 ZOOM SUBTITLE |       |
|--------------|-----------------------------------|-------|-------|-----------|-------|----------------------|-------|
|              |                                   | 100Hz | 120Hz | 100Hz     | 120Hz | 100Hz                | 120Hz |
| 1.V- SHIFT   | Vertical center                   | -1    | -1    | -2        | 0     | -7                   | -1    |
| 2.V-SIZE     | Vertical height                   | +17   | -2    | +4        | +1    | +4                   | 0     |
| 3.H-CENT     | Horizontal center                 | -3    | -1    | +1        | 0     | 0                    | 0     |
| 4.H-SIZE     | Horizontal width                  | -11   | -2    | 0         | 0     | 0                    | 0     |
| 5.EW-PIN     | Side pin correction               | +35   | -1    | +7        | -1    | +6                   | +2    |
| 6.TRAPEZ     | Trapezoidal distortion correction | +6    | 0     | +1        | 0     | 0                    | 0     |
| 7.COR-UP     | Corner upper                      | +7    | +2    | +1        | +1    | +3                   | 0     |
| 8.COR LO     | Corner lower                      | +2    | 0     | -9        | +1    | -8                   | -3    |
| 9.ANGLE      | Angle correction                  | 0     | 0     | 0         | 0     | 0                    | 0     |
| 10.BOW       | Bow-shaped distortion correction  | 0     | 0     | 0         | 0     | 0                    | 0     |
| 11.V-S.CR    | Vertical height correction        | -3    | 0     | +7        | 0     | +7                   | 0     |
| 12.V-LIN     | Vertical Linearity                | -3    | +2    | -22       | 0     | -30                  | 0     |

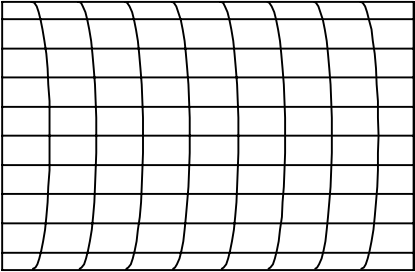
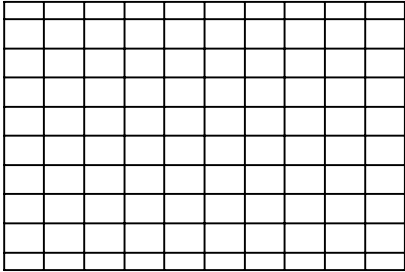
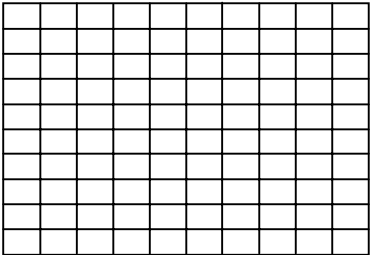
| Item                  | Measuring instrument                        | Test point | Adjustment part | Description  |
|-----------------------|---|------------|-----------------|--|
| Adjustment of V-SHIFT | Signal generator<br><br>Remote control unit |            | 1.V- SHIFT      | <ul style="list-style-type: none"><li>● At first, change the ASPECT mode to FULL.</li><li>1. Receive the circle pattern signal of vertical frequency 50Hz.</li><li>2. Select 4.DEF from the SERVICE MENU.</li><li>3. Select 1.V-SHIFT with the FUNCTION UP/DOWN key.</li><li>4. Adjust V-SHIFT to make <b>A = B</b> as shown in figure.</li><li>5. Press the OK key and memorize the set value.</li></ul> <div></div>  |
| Adjustment of V-SIZE  | Signal generator<br><br>Remote control unit |            | 2.V-SIZE        | <ul style="list-style-type: none"><li>6. Receive the cross-hatch signal.</li><li>7. Select 2.V-SIZE and set the initial setting value.</li><li>8. Adjust V-SIZE and make sure that the vertical screen size of the picture size is in the bellow table.</li><li>9. Press the OK key and memorize the set value.</li><li>10. Input a NTSC VIDEO signal (60Hz) from the EXT terminal, and make sure that the vertical screen size is in the table below as same as 50Hz adjustment condition.</li><li>11. Press the OK key and memorize the set value.</li></ul> <div></div> |

[ VERTICAL SIZE ]

| ASPECT MODE<br>SCREEN | FULL | PANORAMIC | 16:9 ZOOM SUB TITLE |
|-----------------------|------|-----------|---------------------|
| SCREEN TOP            | 92%  | 87%       | 70%                 |
| SCREEN BOTTOM         | 92%  | 87%       | 83%                 |

| Item  | Measuring instrument                    | Test point | Adjustment part | Description  |
|---|---|------------|-----------------|--|
| Adjustment of H.CENTER  | Signal generator<br>Remote control unit |            | 3.H-CENT.       | 12. Receive the circle pattern signal.<br>13. Select 3.H-CENT and set the initial setting value.<br>14. Adjust H-CENT to make <b>C=D</b> .<br>15. Press the OK key and memorize the set value.   |
|    |   |            |                 |  |
| Adjustment of H.SIZE  | Signal generator<br>Remote control unit |            | 4.H-SIZE        | 16. Receive the cross-hatch signal.<br>17. Select 4.H-SIZE and set the initial setting value.<br>18. Adjust H-SIZE and make sure that the horizontal screen size of the picture size is in the bellow table.<br>19. Press the OK key and memorize the set value.<br>20. Input a NTSC VIDEO signal (60Hz) from the EXT terminal, and make sure that the horizontal screen size is in the table below.<br>21. Press the OK key and memorize the set value. |
| [ HORIZONTAL SIZE ]   |   |            |                 |  |
| ASPECT SIZE   |   | FULL       | PANORAMIC       | 16:9 ZOOM SUBTITLE   |
| H SIZE  |   | 92%        | 95%             | 92%  |
| Adjustment of EW-PIN  | Signal generator<br>Remote control unit |            | 5.EW-PIN        | 22. Select 5.EW-PIN and set the initial setting value<br>23. Adjust EW-PIN and make the 2nd vertical lines at the left and right edges of the screen straight. Also make sure that the 3rd vertical lines are straight.<br>24. Press the OK key and memorize the set value.  |
|  |   |            |                 |  |

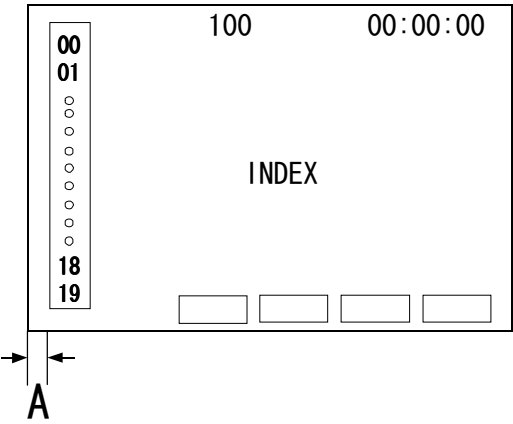
| Item                         | Measuring instrument   | Test point | Adjustment part      | Description  |
|------------------------------|--|------------|----------------------|--|
| Adjustment of TRAPEZ         | Signal generator<br>Remote control unit  |            | 6.TRAPEZ             | <p>25. Receive the cross-hatch signal.</p> <p>26. Select 6.TRAPEZ with the FUNCTION UP/DOWN key.</p> <p>27. Set the initial setting value of TRAPEZ with the FUNCTION LEFT/RIGHT key.</p> <p>28. Adjust TRAPEZ and bring the VERTICAL lines at the right and left edges of the screen parallel .</p> <p>29. Press the OK key and memorize the set value.</p>   |
|                              |   |            |                      |  |
| Adjustment of CORNER UP/ LOW | Signal generator<br>Remote control unit  |            | 7.COR-UP<br>8.COR-LO | <p>30. Select 8.COR-LO with the FUNCTION UP / DOWN key.</p> <p>31. Set the initial setting value of COR-LO with the FUNCTION LEFT/RIGHT key.</p> <p>32. Adjust COR-LO, and bring the line to straight at the corner of the screen bottom.</p> <p>33. Select 7.COR-UP with the FUNCTION UP / DOWN key.</p> <p>34. Set the initial setting value of COR-UP with the FUNCTION LEFT/RIGHT key.</p> <p>35. Adjust COR-UP, and bring the line to straight at the corner of the screen top.</p> <p>36. Press the OK key and memorize the set value.</p> |
|                              |    |            |                      |  |
| Adjustment of ANGLE          | Signal generator<br>Remote control unit  |            | 9.ANGLE              | <p>● In case where there is a parallelogrammical distortion of images on the screen like as shown in Fig.A.</p> <p>37. Select 9.ANGLE with the FUNCTION UP / DOWN key.</p> <p>38. Adjust 9. ANGLE, and bring the VERTICAL lines to straight as shown in Fig.B.</p> <p>39. Press the OK key and memorize the set value.</p>   |
|                              |  <p style="text-align: center;">(A)                      (B)</p> |            |                      |  |

| Item   | Measuring instrument                        | Test point | Adjustment part        | Description   |
|--|---|------------|------------------------|---|
| Adjustment of BOW  | Signal generator<br><br>Remote control unit |            | 10.BOW                 | <ul style="list-style-type: none"> <li>In case where there is a bow-shaped distortion of images on the screen as shown in Fig.C.</li> </ul> 40. Select 10.BOW with the FUNCTION UP/DOWN key.<br>41. Adjust 10.BOW, and bring the VERTICAL lines to straight.<br>42. Press the MENU key and memorize the set value as shown in Fig.D.  |
| <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <span>(C)</span> <span>(D)</span> </div> |   |            |                        |   |
| Adjustment of V-S.CR & V.LINE  | Signal generator<br><br>Remote control unit |            | 11.V-S.CR<br>12.V.LIN. | <ul style="list-style-type: none"> <li>When the vertical linearity has been deteriorated remarkably, perform the following steps.</li> </ul> 43. Receive a cross-hatch signal.<br>44. Select <b>12. V.LIN</b> with the FUNCTION UP / DOWN key.<br>45. Set the initial setting value of <b>12. V.LIN</b> with the FUNCTION LEFT/RIGHT key.<br>46. Select <b>11. V-S.CR</b> with the FUNCTION UP / DOWN key.<br>47. Set the initial setting value of <b>11. V-S.CR</b> with the FUNCTION LEFT/RIGHT key.<br>48. Adjust <b>12. V.LIN</b> and <b>11. V-S.CR</b> so that the spaces of each line on <b>TOP</b> , <b>CENTER</b> , and <b>BOTTOM</b> become uniform. |
| <div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>↓<br/>↑ <b>TOP</b></p> <p>↓<br/>↑ <b>CENTER</b></p> <p>↓<br/>↑ <b>BOTTOM</b></p> </div> </div>   |   |            |                        |   |
|  |   |            |                        | At first the adjustment in 100Hz-FULL mode should be done, then the data for the other aspect mode is corrected in the respective value at the same time. And confirm the deflection adjustment initial setting value in 120Hz (NTSC EXT mode) FULL mode. If the adjustment in 100Hz each aspect mode has been done and stored, the data for the same aspect modes in 120Hz is corrected in the respective value. Only the data for the other aspect mode in 120Hz is corrected for itself.   |

## TEXT CIRCUIT ADJUSTMENT

| Setting item   | Variable range | Initial setting value |
|----------------|----------------|-----------------------|
| 1. TEXT MONO H | 00H ~ FFH      | 0DH                   |
| 2. TEXT MIX H  | 00H ~ FFH      | 00H                   |

| Item  | Measuring instrument | Test point | Adjustment part | Description  |
|---|----------------------|------------|-----------------|--|
| Adjustment of TEXT MONO HORIZONTAL POSITION |                      |            | 1.TEXT MONO H   | <p>● Under normal conditions, no adjustment is required.</p> <ol style="list-style-type: none"> <li>1. Receive any broadcast which includes the TELETEXT signal.</li> <li>2. Select 8. TEXT from SERVICE MENU.</li> <li>3. Select 1.TEXT MONO H with the FUNCTION UP/DOWN key.</li> <li>4. Push TEXT key to get a picture of "TEXT-MONO H".</li> <li>5. Push "SUBPAGE" key. It gets a picture as shown in the left figure.</li> <li>6. Adjust the value of the distance "d" as shown in the left figure with the FUNCTION LEFT/RIGHT key.<br/>Push "SUBPAGE" key to check adjustment every adjust.</li> <li>7. Press the OK Key, and memorize the set values.</li> </ol> |



|            |        |
|------------|--------|
| MODEL      | A [mm] |
| ALL MODELS | 5~20mm |

## AUDIO CIRCUIT ADJUSTMENT

Do not adjust 3. AUDIO of the SERVICE MENU as it requires no adjustment.


### 3. AUDIO

| Setting item                           | Variable range | Initial setting value (fixed) |
|--|----------------|-------------------------------|
| 1. CONC LIMIT ( <i>Do not adjust</i> ) | 00H~FFH        | 0AH                           |
| 2. A2 ID THR ( <i>Do not adjust</i> )  | 00H~FFH        | 19H                           |

AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK

# PARTS LIST

## CAUTION

- The parts identified by the  symbol are important for the safety. Whenever replacing these parts, be sure to use specified ones to secure the safety .
- The parts not indicated in this Parts List and those which are filled with lines — in the Parts No. columns will not be supplied.
- P. W. Board Ass'y will not be supplied, but those which are filled with the Parts No. in the Parts No. columns will be supplied.

## ABBREVIATIONS OF RESISTORS, CAPACITORS AND TOLERANCES

| RESISTORS |  | CAPACITORS      |   |
|-----------|--|-----------------|---|
| C R       | Carbon Resistor                                  | C CAP.          | Ceramic Capacitor                             |
| F R       | Fusible Resistor                                 | E CAP.          | Electrolytic Capacitor                        |
| P R       | Plate Resistor                                   | M CAP.          | Mylar Capacitor                               |
| V R       | Variable Resistor                                | HV CAP.         | High Voltage Capacitor                        |
| HV R      | High Voltage Resistor                            | MF CAP.         | Metalized Film Capacitor                      |
| MF R      | Metal Film Resistor                              | MM CAP.         | Metalized Mylar Capacitor                     |
| MG R      | Metal Glazed Resistor                            | MP CAP.         | Metalized Polystyrol Capacitor                |
| MP R      | Metal Plate Resistor                             | PP CAP.         | Polypropylene Capacitor                       |
| OM R      | Metal Oxide Film Resistor                        | PS CAP.         | Polystyrol Capacitor                          |
| CMF R     | Coating Metal Film Resistor                      | TF CAP.         | Thin Film Capacitor                           |
| UNF R     | Non-Flammable Resistor                           | MPP CAP.        | Metalized Polypropylene Capacitor             |
| CH V R    | Chip Variable Resistor                           | TAN. CAP.       | Tantalum Capacitor                            |
| CH MG R   | Chip Metal Glazed Resistor                       | CH C CAP.       | Chip Ceramic Capacitor                        |
| COMP. R   | Composition Resistor                             | BP E CAP.       | Bi-Polar Electrolytic Capacitor               |
| LPTC R    | Linear Positive Temperature Coefficient Resistor | CH AL E CAP.    | Chip Aluminum Electrolytic Capacitor          |
|           |  | CH AL BP CAP.   | Chip Aluminum Bi-Polar Capacitor              |
|           |  | CH TAN. E CAP.  | Chip Tantalum Electrolytic Capacitor          |
|           |  | CH AL BP E CAP. | Chip Tantalum Bi-Polar Electrolytic Capacitor |

| TOLERANCES |     |     |      |      |      |              |              |              |              |
|------------|-----|-----|------|------|------|--------------|--------------|--------------|--------------|
| F          | G   | J   | K    | M    | N    | R            | H            | Z            | P            |
| ±1%        | ±2% | ±5% | ±10% | ±20% | ±30% | +30%<br>-10% | +50%<br>-10% | +80%<br>-20% | +100%<br>-0% |

# CONTENTS

## AV-32WL1EU / AV-32WL1EI / AV-32WL1EK

|  |    |
|--|----|
| ■ USING PW BOARD & REMOTE CONTROL UNIT ..... | 37 |
| ■ REMOTE CONTROL UNIT PARTS LIST .....       | 37 |
| ■ EXPLODED VIEW PARTS LIST .....             | 38 |
| ■ EXPLODED VIEW [ I ] .....                  | 38 |
| ■ EXPLODED VIEW [ II ] .....                 | 39 |
| ■ PRINTED WIRING BOARD PARTS LIST .....      | 40 |

### AV-32WL1EU / AV-32WL1EI

|  |    |
|--|----|
| ● MAIN PW BOARD ASS'Y .....                      | 40 |
| ● POWER & DEF PW BOARD ASS'Y .....               | 44 |
| ● CRT SOCKET PW BOARD ASS'Y .....                | 46 |
| ● FRONT CONTROL PW BOARD ASS'Y .....             | 47 |
| ● SIDE CONTROL JACK PW BOARD ASS'Y .....         | 47 |
| ● BBE PW BOARD ASS'Y .....                       | 47 |
| ● IF PW BOARD ASS'Y .....                        | 48 |
| ● AV TERMINAL PW BOARD ASS'Y .....               | 49 |
| ● SUB MICON & AUTO PANORAMA PW BOARD ASS'Y ..... | 49 |
| ● 100Hz PW BOARD ASS'Y .....                     | 50 |

### AV-32WL1EK

|  |    |
|--|----|
| ● MAIN PW BOARD ASS'Y .....                      | 53 |
| ● POWER & DEF PW BOARD ASS'Y .....               | 57 |
| ● CRT SOCKET PW BOARD ASS'Y .....                | 57 |
| ● FRONT CONTROL PW BOARD ASS'Y .....             | 57 |
| ● SIDE CONTROL JACK PW BOARD ASS'Y .....         | 57 |
| ● BBE PW BOARD ASS'Y .....                       | 57 |
| ● IF PW BOARD ASS'Y .....                        | 57 |
| ● AV TERMINAL PW BOARD ASS'Y .....               | 58 |
| ● SUB MICON & AUTO PANORAMA PW BOARD ASS'Y ..... | 58 |
| ● 100Hz PW BOARD ASS'Y .....                     | 58 |

|                            |    |
|----------------------------|----|
| ■ PACKING .....            | 59 |
| ■ PACKING PARTS LIST ..... | 60 |

## USING PW BOARD & REMOTE CONTROL UNIT

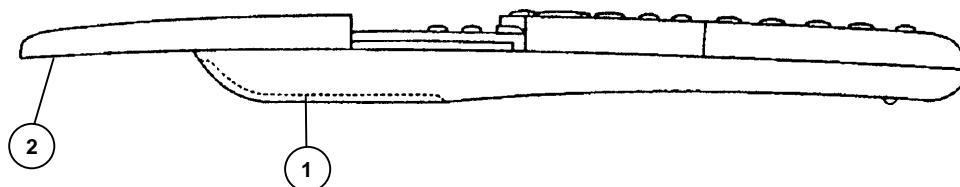
| PWB ASS'Y \ Model             | AV-32WL1EU   | AV-32WL1EI | AV-32WL1EK   |
|-------------------------------|--------------|------------|--------------|
| MAIN PWB                      | SMD-1006A-U2 | ←          | SMD-1903A-U2 |
| POWER & DEF PWB               | SMD-2006A-U2 | ←          | ←            |
| CRT SOCKET PWB                | SMD-3006A-U2 | ←          | ←            |
| FRONT CONTROL PWB             | SMD-8007A-U2 | ←          | ←            |
| SIDE CONTROL JACK PWB         | SMD-8107A-U2 | ←          | ←            |
| IF PWB                        | SMD0F003A-U2 | ←          | SMD0F903A-U2 |
| SUB MICON & AUTO PANORAMA PWB | SMD0W003A-U2 | ←          | ←            |
| 100Hz PWB                     | SMD0Z005A-U2 | ←          | ←            |
| BBE PWB                       | SMD0A001A-U2 | ←          | ←            |
| AV TERMINAL PWB               | SMD0J003A-U2 | ←          | ←            |
| REMOTE CONTROL UNIT           | RM-C54-1C    | RM-C55-1C  | ←            |

## REMOTE CONTROL UNIT PARTS LIST

[ AV-32WL1EU: RM-C54-1C ]

[ AV-32WL1EI / AV-32WL1EK : RM-C55-1C ]

| △ Ref. No. | Part No.  | Part Name     | Description |
|------------|-----------|---------------|-------------|
| 1          | 2AA030733 | BATTERY COVER |             |
| 2          | 2AA030732 | SLIDE COVER   | (RM-C54-1C) |
| 2          | 2AA030740 | SLIDE COVER   | (RM-C55-1C) |

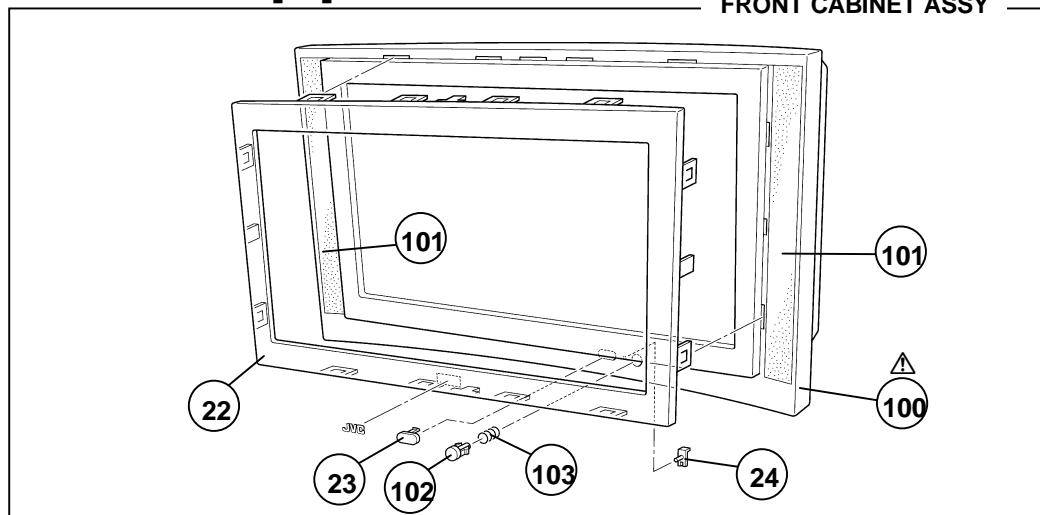


## AV-32WL1EU / AV-32WL1EI / AV-32WL1EK

### EXPLODED VIEW PARTS LIST

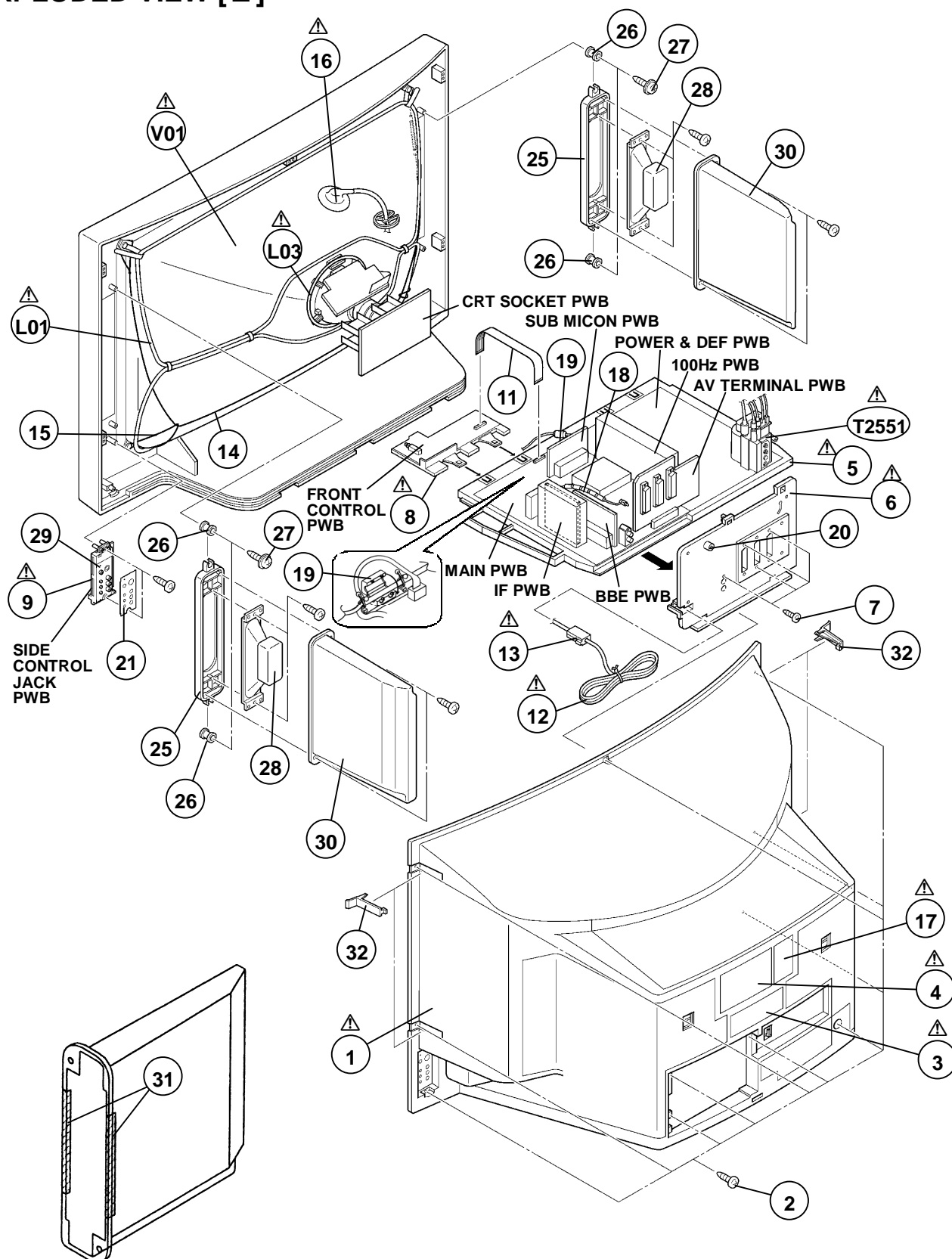
| △ Ref. No. | Part No.              | Part Name           | Description                         |
|------------|-----------------------|---------------------|-------------------------------------|
| △ L01      | QQW0066-001           | DEG COIL            |                                     |
| △ L03      | CELD904-001           | ROTATION COIL       |                                     |
| △ T2551    | QQH0054-002-I2        | H. V. TRANSF.       | (SERVICE)Within POWER & DEF PWB     |
| △ V01      | W76ERF031X044         | CRT                 | Inc. DY, PC, WED                    |
| △ 1        | LC10853-002C-U        | REAR COVER          |                                     |
| △ 2        | QYSBSAG4016N          | TAPPING SCREW       | (×11)For REAR COVER                 |
| △ 3        | LC20380-006A-U        | RATING LABEL        | For ENG/ESP/FRA (AV-32WL1EU)        |
| △ 4        | <b>LC20379-006A-U</b> | <b>RATING LABEL</b> | <b>For ENG/GER/ITA (AV-32WL1EU)</b> |
| △ 4        | <b>LC20080-009A-U</b> | <b>RATING LABEL</b> | <b>(AV-32WL1EI)</b>                 |
| △ 4        | <b>LC20075-030A-U</b> | <b>RATING LABEL</b> | <b>(AV-32WL1EK)</b>                 |
| △ 5        | LC10716-001E-U        | CHASSIS BASE        |                                     |
| △ 6        | LC10717-004A-U        | AV BOARD            |                                     |
| △ 7        | QYSBSB3012M           | TAPPING SCREW       | (×4)For AV BOARD                    |
| △ 8        | LC10855-001B-U        | CONTROL BASE        |                                     |
| △ 9        | LC10856-001B-U        | SIDE CONTROL BASE   |                                     |
| 11         | CHFD125-11BD          | FFC WIRE            |                                     |
| △ 12       | <b>QMPK160-185-JC</b> | <b>POWER CORD</b>   | <b>(AV-32WL1EU)</b>                 |
| △ 12       | <b>QMPN130-185-JC</b> | <b>POWER CORD</b>   | <b>(AV-32WL1EI)</b>                 |
| △ 12       | <b>QMPN130-185-JC</b> | <b>POWER CORD</b>   | <b>(AV-32WL1EK)</b>                 |
| △ 13       | CM46618-A01-E         | POWER CORD CLAMP    |                                     |
| △ 14       | CHGB0029-0C           | BRAIDED ASSY        |                                     |
| △ 15       | CHGB0017-0B           | BRAIDED SUB ASSY    | (×2)                                |
| △ 16       | QNZ0407-001           | ANODE WIRE ASSY     |                                     |
| △ 17       | LC30789-002A-U        | WARNING LABEL       |                                     |
| 18         | WJX0006-001A          | E-COAXIAL ASSY      |                                     |
| 19         | QQR0491-001           | FILTER              |                                     |
| 20         | CE42112-002           | PALJ CONNECTOR      |                                     |
| 21         | LC31205-002A-U        | CONTROL SHEET       |                                     |
| 22         | LC10851-002B-U        | FRONT PANEL         |                                     |
| 23         | LC31203-001A          | REMOCON WINDOW      |                                     |
| 24         | LC31202-001A          | LED LENS            |                                     |
| 25         | LC10720-001B-U        | ADAPTER             | (×2)                                |
| 26         | LC40226-001A          | SPACER              | (×4)                                |
| 27         | LC40506-001A          | TAPPING SCREW       | (×4)                                |
| 28         | QAS0046-001           | SPEAKER             | (×2) SP01, SP02                     |
| 30         | LC10858-001A-U        | SPEAKER BOX         | (×2)                                |
| 31         | AEM3029-A11-E         | STICK SHEET         | (×4)                                |
| 32         | LC20603-002A-U        | SCREW CAP           | (×4)                                |
| △ 100      | LC10854-001A-U        | F CABI ASSY         | Inc. No. 101~103                    |
| 101        | LC20602-001A          | SPEAKER SHEET       | (×2)                                |
| 102        | LC31201-002A-U        | POWER KNOB          | (SERVICE)                           |
| 103        | CM35235-003-H         | SPRING              |                                     |

### EXPLODED VIEW [ I ]



# AV-32WL1EU / AV-32WL1EI / AV-32WL1EK

## EXPLODED VIEW [ II ]



# AV-32WL1EU / AV-32WL1EI

## PRINTED WIRING BOARD PARTS LIST MAIN PW BOARD ASS'Y (SMD-1006A-U2)

| △ Symbol No.    | Part No.     | Part Name | Description   |
|-----------------|--------------|-----------|---------------|
| <b>RESISTOR</b> |              |           |               |
| R1002           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1003-06        | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1101-03        | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1104           | NRSA02J-681X | MG R      | 680Ω 1/10W J  |
| R1105           | NRSA02J-392X | MG R      | 3.9kΩ 1/10W J |
| R1107           | NRSA02J-391X | MG R      | 390Ω 1/10W J  |
| R1108           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1109           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1110           | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1111           | NRSA02J-821X | MG R      | 820Ω 1/10W J  |
| R1112           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1113           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1121-22        | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R1123           | NRSA02J-152X | MG R      | 1.5kΩ 1/10W J |
| R1124           | NRSA02J-821X | MG R      | 820Ω 1/10W J  |
| R1125-27        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1128           | NRSA02J-153X | MG R      | 15kΩ 1/10W J  |
| R1131-33        | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1134           | NRSA02J-681X | MG R      | 680Ω 1/10W J  |
| R1135           | NRSA02J-561X | MG R      | 560Ω 1/10W J  |
| R1136           | NRSA02J-681X | MG R      | 680Ω 1/10W J  |
| R1137           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1138           | NRSA02J-391X | MG R      | 390Ω 1/10W J  |
| R1140           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1141           | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1142           | NRSA02J-821X | MG R      | 820Ω 1/10W J  |
| R1151           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1152-53        | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1154           | NRSA02J-681X | MG R      | 680Ω 1/10W J  |
| R1155           | NRSA02J-561X | MG R      | 560Ω 1/10W J  |
| R1156           | NRSA02J-681X | MG R      | 680Ω 1/10W J  |
| R1157           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1158           | NRSA02J-391X | MG R      | 390Ω 1/10W J  |
| R1160           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1161           | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1162           | NRSA02J-821X | MG R      | 820Ω 1/10W J  |
| R1171           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1172           | NRSA02J-562X | MG R      | 5.6kΩ 1/10W J |
| R1173           | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R1174           | NRSA02J-272X | MG R      | 2.7kΩ 1/10W J |
| R1175           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1176           | NRSA02J-392X | MG R      | 3.9kΩ 1/10W J |
| R1177           | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1178           | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R1179           | NRSA02J-272X | MG R      | 2.7kΩ 1/10W J |
| R1201-02        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1203           | NRSA02J-750X | MG R      | 75Ω 1/10W J   |
| R1204           | QRK126J-151X | C R       | 150Ω 1/2W J   |
| R1205           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1206           | QRG01GJ-101  | OM R      | 100Ω 1W J     |
| R1207           | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1208           | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R1209           | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R1210           | NRSA02J-153X | MG R      | 15kΩ 1/10W J  |
| R1211           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1212           | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R1213           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R1214           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1215           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1216           | NRSA02J-333X | MG R      | 33kΩ 1/10W J  |
| R1217           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1218           | NRSA02J-333X | MG R      | 33kΩ 1/10W J  |
| R1219           | NRSA02J-823X | MG R      | 82kΩ 1/10W J  |
| R1220           | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R1221           | NRSA02J-391X | MG R      | 390Ω 1/10W J  |

| △ Symbol No.    | Part No.     | Part Name | Description   |
|-----------------|--------------|-----------|---------------|
| <b>RESISTOR</b> |              |           |               |
| R1222           | NRSA02J-823X | MG R      | 82kΩ 1/10W J  |
| R1223           | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R1224           | NRSA02J-391X | MG R      | 390Ω 1/10W J  |
| R1225-26        | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1227           | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R1228           | NRSA02J-680X | MG R      | 68Ω 1/10W J   |
| R1229           | QRK126J-181X | C R       | 180Ω 1/2W J   |
| R1231           | QRG01GJ-101  | OM R      | 100Ω 1W J     |
| R1232           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1233           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1242           | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1243           | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R1244           | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R1245           | NRSA02J-153X | MG R      | 15kΩ 1/10W J  |
| R1246           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1247           | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R1248           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R1249           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1250           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1251           | NRSA02J-333X | MG R      | 33kΩ 1/10W J  |
| R1252           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1253           | NRSA02J-333X | MG R      | 33kΩ 1/10W J  |
| R1254           | NRSA02J-823X | MG R      | 82kΩ 1/10W J  |
| R1255           | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R1256           | NRSA02J-391X | MG R      | 390Ω 1/10W J  |
| R1257           | NRSA02J-823X | MG R      | 82kΩ 1/10W J  |
| R1258           | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R1259           | NRSA02J-391X | MG R      | 390Ω 1/10W J  |
| R1260-61        | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1262           | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R1263           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1264           | NRSA02J-333X | MG R      | 33kΩ 1/10W J  |
| R1265           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1266           | NRSA02J-333X | MG R      | 33kΩ 1/10W J  |
| R1267-69        | NRSA02J-750X | MG R      | 75Ω 1/10W J   |
| R1277-79        | NRSA02J-750X | MG R      | 75Ω 1/10W J   |
| R1280           | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1281           | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R1282           | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R1283           | NRSA02J-153X | MG R      | 15kΩ 1/10W J  |
| R1284           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1285           | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R1286           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R1287           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1288           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1289           | NRSA02J-333X | MG R      | 33kΩ 1/10W J  |
| R1290           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1291           | NRSA02J-333X | MG R      | 33kΩ 1/10W J  |
| R1292           | NRSA02J-471X | MG R      | 470Ω 1/10W J  |
| R1301           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1302           | NRSA02J-471X | MG R      | 470Ω 1/10W J  |
| R1303           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1304           | NRSA02J-471X | MG R      | 470Ω 1/10W J  |
| R1305           | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R1306           | NRSA02J-271X | MG R      | 270Ω 1/10W J  |
| R1307           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1308           | NRSA02J-471X | MG R      | 470Ω 1/10W J  |
| R1309           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1310           | NRSA02J-471X | MG R      | 470Ω 1/10W J  |
| R1311           | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R1312           | NRSA02J-271X | MG R      | 270Ω 1/10W J  |
| R1313           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1314-15        | NRSA02J-471X | MG R      | 470Ω 1/10W J  |
| R1317-18        | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1320           | NRSA02J-221X | MG R      | 220Ω 1/10W J  |

| △ Symbol No.    | Part No.     | Part Name | Description   |
|-----------------|--------------|-----------|---------------|
| <b>RESISTOR</b> |              |           |               |
| R1323-24        | NRSA02J-562X | MG R      | 5.6kΩ 1/10W J |
| R1326-29        | NRSA02J-152X | MG R      | 1.5kΩ 1/10W J |
| R1330           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1331           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1332-33        | NRSA02J-471X | MG R      | 470Ω 1/10W J  |
| R1334-35        | NRSA02J-152X | MG R      | 1.5kΩ 1/10W J |
| R1336           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1337           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1338-40        | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1341           | NRSA02J-183X | MG R      | 18kΩ 1/10W J  |
| R1342           | NRSA02J-823X | MG R      | 82kΩ 1/10W J  |
| R1343-44        | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1345-46        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1347           | NRSA02J-562X | MG R      | 5.6kΩ 1/10W J |
| R1348           | NRSA02J-471X | MG R      | 470Ω 1/10W J  |
| R1349           | NRSA02J-152X | MG R      | 1.5kΩ 1/10W J |
| R1350           | NRSA02J-271X | MG R      | 270Ω 1/10W J  |
| R1381           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1382           | NRSA02J-152X | MG R      | 1.5kΩ 1/10W J |
| R1383           | NRSA02J-822X | MG R      | 8.2kΩ 1/10W J |
| R1384           | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R1385           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R1386           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1387           | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R1388           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R1389           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1390           | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R1391           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R1392           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1395-97        | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R1398           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1401-02        | NRSA02J-682X | MG R      | 6.8kΩ 1/10W J |
| R1403           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1404           | QRX01GJ-1R0  | MF R      | 1.0Ω 1W J     |
| R1405           | QRL029J-221  | OM R      | 220Ω 2W J     |
| R1406           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1407-08        | QRX01GJ-1R5  | MF R      | 1.5Ω 1W J     |
| R1409-10        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1461           | NRSA02J-272X | MG R      | 2.7kΩ 1/10W J |
| R1462           | NRSA02J-563X | MG R      | 56kΩ 1/10W J  |
| R1463           | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R1464           | NRSA02J-123X | MG R      | 12kΩ 1/10W J  |
| R1501           | NRSA02J-332X | MG R      | 3.3kΩ 1/10W J |
| R1551           | NRSA02J-100X | MG R      | 10Ω 1/10W J   |
| R1552           | NRSA02J-124X | MG R      | 120kΩ 1/10W J |
| R1553           | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R1554           | NRSA02J-562X | MG R      | 5.6kΩ 1/10W J |
| R1555           | NRSA02J-333X | MG R      | 33kΩ 1/10W J  |
| R1556           | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1557           | NRSA02J-562X | MG R      | 5.6kΩ 1/10W J |
| R1558           | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R1559           | NRSA02J-154X | MG R      | 150kΩ 1/10W J |
| R1560           | NRSA02J-100X | MG R      | 10Ω 1/10W J   |
| R1561           | QRN143J-0R0X | C R       | 0.0Ω 1/4W J   |
| R1601           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1602           | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R1603           | NRSA02J-272X | MG R      | 2.7kΩ 1/10W J |
| R1604           | NRSA02J-563X | MG R      | 56kΩ 1/10W J  |
| R1605           | NRSA02J-122X | MG R      | 1.2kΩ 1/10W J |
| R1606-07        | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1608           | NRSA02J-272X | MG R      | 2.7kΩ 1/10W J |
| R1609           | NRSA02J-563X | MG R      | 56kΩ 1/10W J  |
| R1610           | NRSA02J-152X | MG R      | 1.5kΩ 1/10W J |
| R1611           | NRSA02J-331X | MG R      | 330Ω 1/10W J  |
| R1612           | NRSA02J-561X | MG R      | 560Ω 1/10W J  |
| R1613-14        | NRSA02J-123X | MG R      | 12kΩ 1/10W J  |
| R1615           | NRSA02J-681X | MG R      | 680Ω 1/10W J  |
| R1616           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1617-18        | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R1651           | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1652           | NRSA02J-822X | MG R      | 8.2kΩ 1/10W J |
| R1653           | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |

| △ Symbol No.    | Part No.     | Part Name | Description   |
|-----------------|--------------|-----------|---------------|
| <b>RESISTOR</b> |              |           |               |
| R1654           | NRSA02J-822X | MG R      | 8.2kΩ 1/10W J |
| R1655           | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R1656-57        | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1659-60        | QRN143J-2R2X | C R       | 2.2Ω 1/4W J   |
| R1661           | NRSA02J-561X | MG R      | 560Ω 1/10W J  |
| R1665           | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R1666           | NRSA02J-682X | MG R      | 6.8kΩ 1/10W J |
| R1668           | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R1669           | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R1670           | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R1671           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R1682           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1683           | NRSA02J-562X | MG R      | 5.6kΩ 1/10W J |
| R1684           | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R1685-86        | NRSA02J-681X | MG R      | 680Ω 1/10W J  |
| R1687-88        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1703-05        | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1708           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1709           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1710           | NRSA02J-821X | MG R      | 820Ω 1/10W J  |
| R1711           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1713-14        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1716           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1718           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1719           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1720           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1721-23        | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1724-26        | NRSA02J-821X | MG R      | 820Ω 1/10W J  |
| R1727           | NRSA02J-153X | MG R      | 15kΩ 1/10W J  |
| R1728           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1729           | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R1730           | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1731           | NRSA02J-562X | MG R      | 5.6kΩ 1/10W J |
| R1732           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1733           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1734           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1735-36        | NRSA02J-682X | MG R      | 6.8kΩ 1/10W J |
| R1738           | NRSA02J-183X | MG R      | 18kΩ 1/10W J  |
| R1739           | NRSA02J-331X | MG R      | 330Ω 1/10W J  |
| R1740           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1742           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1743           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1744-46        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1747           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1751-52        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1753           | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1754           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1755           | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1756-57        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1758-59        | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R1760           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1761-65        | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R1766           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1767           | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R1768           | NRSA02J-823X | MG R      | 82kΩ 1/10W J  |
| R1770           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1771           | NRSA02J-392X | MG R      | 3.9kΩ 1/10W J |
| R1772-74        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1775-76        | NRSA02J-563X | MG R      | 56kΩ 1/10W J  |
| R1777           | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1778           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1779           | NRSA02J-333X | MG R      | 33kΩ 1/10W J  |
| R1780           | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R1791           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1792           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1793           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1794           | NRSA02J-152X | MG R      | 1.5kΩ 1/10W J |
| R1797           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1820           | NRSA02J-332X | MG R      | 3.3kΩ 1/10W J |
| R1880-82        | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1883           | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R1884-86        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |

| Symbol No.      | Part No.     | Part Name | Description   |
|-----------------|--------------|-----------|---------------|
| <b>RESISTOR</b> |              |           |               |
| R1888-89        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1890           | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R1891           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R1892-96        | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R1897           | QRG029J-220  | OM R      | 22 Ω 2W J     |
| R1901           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1902           | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1903           | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1904           | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1905           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |

|                  |              |           |              |
|------------------|--------------|-----------|--------------|
| <b>CAPACITOR</b> |              |           |              |
| C1001            | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K  |
| C1002            | QETN1HM-107Z | E CAP.    | 100μF 50V M  |
| C1003            | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K  |
| C1004            | QETN1CM-107Z | E CAP.    | 100μF 16V M  |
| C1005            | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K  |
| C1006            | QETN1CM-227Z | E CAP.    | 220μF 16V M  |
| C1007            | NCB21HK-222X | C CAP.    | 2200pF 50V K |
| C1008            | QETN1HM-106Z | E CAP.    | 10μF 50V M   |
| C1101-02         | QETN1CM-107Z | E CAP.    | 100μF 16V M  |
| C1103            | NDC21HJ-181X | C CAP.    | 180pF 50V J  |
| C1104            | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1105            | QENC1HM-474Z | BP E CAP. | 0.47μF 50V M |
| C1106            | QETN1HM-106Z | E CAP.    | 10μF 50V M   |
| C1107            | QETN1AM-227Z | E CAP.    | 220μF 10V M  |
| C1108            | NDC21HJ-120X | C CAP.    | 12pF 50V J   |
| C1109            | NDC21HJ-470X | C CAP.    | 47pF 50V J   |
| C1110            | NDC21HJ-220X | C CAP.    | 22pF 50V J   |
| C1121-22         | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1123            | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1124-25         | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1128            | QETN1CM-107Z | E CAP.    | 100μF 16V M  |
| C1129            | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1130            | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1131            | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1132            | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1134            | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1135            | NDC21HJ-181X | C CAP.    | 180pF 50V J  |
| C1136-39         | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1140            | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1141            | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1151            | QETN1AM-227Z | E CAP.    | 220μF 10V M  |
| C1152            | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1153            | QETN1AM-107Z | E CAP.    | 100μF 10V M  |
| C1155            | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1156            | NDC21HJ-270X | C CAP.    | 27pF 50V J   |
| C1157            | NDC21HJ-220X | C CAP.    | 22pF 50V J   |
| C1161            | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1163            | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1171            | NDC21HJ-221X | C CAP.    | 220pF 50V J  |
| C1172            | NDC21HJ-560X | C CAP.    | 56pF 50V J   |
| C1173            | NDC21HJ-221X | C CAP.    | 220pF 50V J  |
| C1174            | NDC21HJ-121X | C CAP.    | 120pF 50V J  |
| C1192            | QETN1CM-227Z | E CAP.    | 220μF 16V M  |
| C1193            | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1201            | QETN1CM-227Z | E CAP.    | 220μF 16V M  |
| C1202            | NCB21HK-102X | C CAP.    | 1000pF 50V K |
| C1203-04         | QETN1HM-105Z | E CAP.    | 1μF 50V M    |
| C1205-06         | QETN1HM-106Z | E CAP.    | 10μF 50V M   |
| C1207            | QETN1CM-227Z | E CAP.    | 220μF 16V M  |
| C1211            | NCB21HK-102X | C CAP.    | 1000pF 50V K |
| C1212-13         | QETN1HM-105Z | E CAP.    | 1μF 50V M    |
| C1214-15         | QETN1HM-106Z | E CAP.    | 10μF 50V M   |
| C1216-17         | QETN1HM-105Z | E CAP.    | 1μF 50V M    |
| C1218-19         | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1220            | QETN1HM-105Z | E CAP.    | 1μF 50V M    |
| C1221-22         | QETN1CM-107Z | E CAP.    | 100μF 16V M  |
| C1223-24         | QETN1HM-105Z | E CAP.    | 1μF 50V M    |
| C1231-33         | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1234            | NCB21HK-102X | C CAP.    | 1000pF 50V K |

|                  |              |           |               |
|------------------|--------------|-----------|---------------|
| <b>CAPACITOR</b> |              |           |               |
| C1301            | QETN1CM-227Z | E CAP.    | 220μF 16V M   |
| C1302            | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1303            | QETN1EM-476Z | E CAP.    | 47μF 25V M    |
| C1304            | QENC1CM-476Z | BP E CAP. | 47μF 16V M    |
| C1305            | QETN1HM-226Z | E CAP.    | 22μF 50V M    |
| C1306            | NCB21HK-223X | C CAP.    | 0.022μF 50V K |
| C1307-08         | QENC1HM-105Z | BP E CAP. | 1μF 50V M     |
| C1309            | NDC21HJ-390X | C CAP.    | 39pF 50V J    |
| C1311-13         | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1314            | NCB21HK-222X | C CAP.    | 2200pF 50V K  |
| C1315            | NCB21CK-474X | C CAP.    | 0.47μF 16V K  |
| C1316            | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1317            | NCB21EK-154X | C CAP.    | 0.15μF 25V K  |
| C1318            | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1319            | NCB21HK-332X | C CAP.    | 3300pF 50V K  |
| C1320            | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1321-22         | NDC21HJ-150X | C CAP.    | 15pF 50V J    |
| C1323            | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1325-26         | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1327            | QETN1CM-227Z | E CAP.    | 220μF 16V M   |
| C1328-32         | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1342-44         | NDC21HJ-220X | C CAP.    | 22pF 50V J    |
| C1345            | NDC21HJ-121X | C CAP.    | 120pF 50V J   |
| C1362            | NDC21HJ-330X | C CAP.    | 33pF 50V J    |
| C1363-65         | QETN1HM-106Z | E CAP.    | 10μF 50V M    |
| C1387-88         | QETN1EM-476Z | E CAP.    | 47μF 25V M    |
| C1389-90         | QETNOJM-228Z | E CAP.    | 2200μF 6.3V M |
| C1392            | NDC21HJ-680X | C CAP.    | 68pF 50V J    |
| C1396-98         | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1403            | QFLC2AJ-104Z | M CAP.    | 0.1μF 100V J  |
| C1404            | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1405            | NDC21HJ-820X | C CAP.    | 82pF 50V J    |
| C1406            | QETN1VM-108  | E CAP.    | 1000μF 35V M  |
| C1408            | QETN1VM-337Z | E CAP.    | 330μF 35V M   |
| C1409-10         | QFV71HJ-474Z | MF CAP.   | 0.47μF 50V J  |
| C1412            | QFLC2AJ-104Z | M CAP.    | 0.1μF 100V J  |
| C1417-18         | QETN1CM-108Z | E CAP.    | 1000μF 16V M  |
| C1419            | NCB21HK-682X | C CAP.    | 6800pF 50V K  |
| C1461            | QETN1HM-226Z | E CAP.    | 22μF 50V M    |
| C1551-52         | NCB21CK-224X | C CAP.    | 0.22μF 16V K  |
| C1553            | QETN1EM-476Z | E CAP.    | 47μF 25V M    |
| C1554-55         | NCB21CK-224X | C CAP.    | 0.22μF 16V K  |
| C1601-02         | QDC31HJ-2R0Z | C CAP.    | 2.0pF 50V J   |
| C1603-04         | NCB21HK-103X | C CAP.    | 0.01μF 50V K  |
| C1605-06         | QETN1HM-106Z | E CAP.    | 10μF 50V M    |
| C1607-08         | NCF21EZ-104X | C CAP.    | 0.1μF 25V Z   |
| C1613-14         | NDC21HJ-471X | C CAP.    | 470pF 50V J   |
| C1615            | NCF21EZ-104X | C CAP.    | 0.1μF 25V Z   |
| C1616-18         | QETN1HM-106Z | E CAP.    | 10μF 50V M    |
| C1619            | NCF21EZ-104X | C CAP.    | 0.1μF 25V Z   |
| C1620            | QETN1HM-106Z | E CAP.    | 10μF 50V M    |
| C1621-24         | NCB21HK-102X | C CAP.    | 1000pF 50V K  |
| C1625-26         | NDC21HJ-391X | C CAP.    | 390pF 50V J   |
| C1627-28         | NCB21HK-102X | C CAP.    | 1000pF 50V K  |
| C1629            | NCB21HK-103X | C CAP.    | 0.01μF 50V K  |
| C1630            | NCF21EZ-104X | C CAP.    | 0.1μF 25V Z   |
| C1631            | QETN1CM-107Z | E CAP.    | 100μF 16V M   |
| C1632            | NCF21EZ-104X | C CAP.    | 0.1μF 25V Z   |
| C1633-34         | QETN1HM-105Z | E CAP.    | 1μF 50V M     |
| C1635            | NCB21HK-562X | C CAP.    | 5600pF 50V K  |
| C1636            | QETN1CM-107Z | E CAP.    | 100μF 16V M   |
| C1637-38         | NDC21HJ-221X | C CAP.    | 220pF 50V J   |
| C1639-40         | QETN1HM-106Z | E CAP.    | 10μF 50V M    |
| C1641            | QETN1EM-476Z | E CAP.    | 47μF 25V M    |
| C1642            | NCB21HK-562X | C CAP.    | 5600pF 50V K  |
| C1643            | QETN1HM-105Z | E CAP.    | 1μF 50V M     |
| C1644-45         | NDC21HJ-470X | C CAP.    | 47pF 50V J    |
| C1646            | NDC21HJ-820X | C CAP.    | 82pF 50V J    |
| C1647            | NCB21HK-472X | C CAP.    | 4700pF 50V K  |
| C1648            | NDC21HJ-180X | C CAP.    | 18pF 50V J    |
| C1652-53         | QETN1HM-105Z | E CAP.    | 1μF 50V M     |
| C1654            | QETN1HM-107Z | E CAP.    | 100μF 50V M   |
| C1655            | QETN1HM-106Z | E CAP.    | 10μF 50V M    |

| △ Symbol No.       | Part No.     | Part Name      | Description   |
|--------------------|--------------|----------------|---------------|
| <b>CAPACITOR</b>   |              |                |               |
| C1656-57           | NCF21HZ-224X | C CAP.         | 0.22μF 50V Z  |
| C1658              | QETM1HM-228  | E CAP.         | 2200μF 50V M  |
| C1661-62           | NCF21HZ-224X | C CAP.         | 0.22μF 50V Z  |
| C1663-64           | QETM1VM-108  | E CAP.         | 1000μF 35V M  |
| C1667              | QETN1CM-2272 | E CAP.         | 220μF 16V M   |
| C1676-77           | NCB21HK-103X | C CAP.         | 0.01μF 50V K  |
| C1679              | QETN1HM-474Z | E CAP.         | 0.47μF 50V M  |
| C1682              | QETN1CM-2272 | E CAP.         | 220μF 16V M   |
| C1701              | NDC21HJ-471X | C CAP.         | 470pF 50V J   |
| C1702              | NCB21HK-682X | C CAP.         | 6800pF 50V K  |
| C1703              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1704              | QETN1AM-2272 | E CAP.         | 220μF 10V M   |
| C1705-06           | NDC21HJ-9R0X | C CAP.         | 9.0pF 50V J   |
| C1707              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1708              | NCB21HK-333X | C CAP.         | 0.033μF 50V K |
| C1709              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1710              | QETN1EM-476Z | E CAP.         | 47μF 25V M    |
| C1711              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1714              | QETN1HM-474Z | E CAP.         | 0.47μF 50V M  |
| C1715              | QETN1EM-476Z | E CAP.         | 47μF 25V M    |
| C1717              | QETN1HM-106Z | E CAP.         | 10μF 50V M    |
| C1718              | NDC21HJ-471X | C CAP.         | 470pF 50V J   |
| C1719              | NCF21CZ-105X | C CAP.         | 1μF 16V Z     |
| C1720              | NCB21HK-102X | C CAP.         | 1000pF 50V K  |
| C1757              | NCS21HJ-471X | C CAP.         | 470pF 50V J   |
| C1758              | QETN1AM-2272 | E CAP.         | 220μF 10V M   |
| C1759              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1760-61           | NDC21HJ-150X | C CAP.         | 15pF 50V J    |
| C1762              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1763              | QETN1EM-476Z | E CAP.         | 47μF 25V M    |
| C1764              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1766-68           | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1774              | NDC21HJ-151X | C CAP.         | 150pF 50V J   |
| C1776-77           | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1780              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1781              | NDC21HJ-101X | C CAP.         | 100pF 50V J   |
| C1782              | NCB21HK-102X | C CAP.         | 1000pF 50V K  |
| C1783              | NDC21HJ-151X | C CAP.         | 150pF 50V J   |
| C1784              | QETN1CM-2272 | E CAP.         | 220μF 16V M   |
| C1785              | NCB21HK-102X | C CAP.         | 1000pF 50V K  |
| C1901              | QETN1CM-107Z | E CAP.         | 100μF 16V M   |
| C1902              | QETN1HM-106Z | E CAP.         | 10μF 50V M    |
| <b>TRANSFORMER</b> |              |                |               |
| T1101              | CE42697-001  | LOWPASS FILTER |               |
| T1111              | CE42697-001  | LOWPASS FILTER |               |
| T1121              | CE42697-001  | LOWPASS FILTER |               |
| <b>COIL</b>        |              |                |               |
| L1001-02           | QQL01BK-8R2Z | PEAKING COIL   | 8.2μH         |
| L1003              | QQL01BK-221Z | PEAKING COIL   | 220μH         |
| L1004              | QQL01BK-5R6Z | PEAKING COIL   | 5.6μH         |
| L1101              | QRN143J-0R0X | C R            | 0.0Ω 1/4W J   |
| L1102-05           | QQL03BJ-220Z | PEAKING COIL   | 22μH          |
| L1106              | QQL03BJ-270Z | PEAKING COIL   | 27μH          |
| L1111              | QQL03BJ-220Z | PEAKING COIL   | 22μH          |
| L1121              | QQL03BJ-330Z | PEAKING COIL   | 33μH          |
| L1301              | QQL01BK-330Z | PEAKING COIL   | 33μH          |
| L1302              | NQL024J-5R6X | COIL           | 5.6μH         |
| L1601-02           | QRN143J-0R0X | C R            | 0.0Ω 1/4W J   |
| L1603              | QQL01BK-100Z | PEAKING COIL   | 10μH          |
| L1604              | QQL01BJ-180Z | PEAKING COIL   | 18μH          |
| L1605              | QQL01BJ-220Z | PEAKING COIL   | 22μH          |
| L1606-07           | QQL01BK-5R6Z | PEAKING COIL   | 5.6μH         |
| L1701              | QQL01BK-331Z | PEAKING COIL   | 330μH         |
| L1702              | QQL01BK-3R9Z | PEAKING COIL   | 3.9μH         |
| L1752              | QRN143J-0R0X | C R            | 0.0Ω 1/4W J   |
| L1753              | QQL01BK-4R7Z | PEAKING COIL   | 4.7μH         |

| △ Symbol No.      | Part No.        | Part Name        | Description |
|-------------------|-----------------|------------------|-------------|
| <b>DIODE</b>      |                 |                  |             |
| D1201-11          | MA3130/H/-X     | ZENER DIODE      |             |
| D1214-15          | MA3130/H/-X     | ZENER DIODE      |             |
| D1402             | BYD33D-T3       | SI DIODE         |             |
| D1403-04          | MA3330/L/-X     | ZENER DIODE      |             |
| D1461             | MA111-X         | SI DIODE         |             |
| D1462             | MA3220/M/-X     | ZENER DIODE      |             |
| D1502             | MA111-X         | SI DIODE         |             |
| D1504             | MA111-X         | SI DIODE         |             |
| D1601             | MA3062/M/-X     | ZENER DIODE      |             |
| D1653-54          | MA3330/L/-X     | ZENER DIODE      |             |
| D1657             | MA111-X         | SI DIODE         |             |
| D1658             | MA153A-X        | SI DIODE         |             |
| D1660             | MA111-X         | SI DIODE         |             |
| D1661             | MA153A-X        | SI DIODE         |             |
| D1664             | MA111-X         | SI DIODE         |             |
| D1669             | MA152WK-X       | SI DIODE         |             |
| D1670             | MA111-X         | SI DIODE         |             |
| D1701-02          | MA111-X         | SI DIODE         |             |
| D1704             | 1S5244-T2       | SI DIODE         |             |
| D1708             | MA111-X         | SI DIODE         |             |
| D1709             | MA3068/M/-X     | ZENER DIODE      |             |
| D1712             | MA111-X         | SI DIODE         |             |
| D1753             | MA111-X         | SI DIODE         |             |
| D1754             | MA3062/M/-X     | ZENER DIODE      |             |
| D1771-76          | MA3056/M/-X     | ZENER DIODE      |             |
| D1901             | MA3130/H/-X     | ZENER DIODE      |             |
| <b>TRANSISTOR</b> |                 |                  |             |
| Q1101-04          | 2SC2412K/QR/-X  | SI TRANSISTOR    |             |
| Q1111             | 2SC2412K/QR/-X  | SI TRANSISTOR    |             |
| Q1112             | 2SA1037AK/QR/-X | SI TRANSISTOR    |             |
| Q1113-14          | 2SC2412K/QR/-X  | SI TRANSISTOR    |             |
| Q1121             | 2SC2412K/QR/-X  | SI TRANSISTOR    |             |
| Q1122             | 2SA1037AK/QR/-X | SI TRANSISTOR    |             |
| Q1123-24          | 2SC2412K/QR/-X  | SI TRANSISTOR    |             |
| Q1131-32          | 2SC2412K/QR/-X  | SI TRANSISTOR    |             |
| Q1201-02          | 2SC2712/YG/-X   | SI TRANSISTOR    |             |
| Q1203             | 2SC1815/YG/-T   | SI TRANSISTOR    |             |
| Q1204-05          | 2SC2712/YG/-X   | SI TRANSISTOR    |             |
| Q1206-07          | DTC323TK-X      | DIGI. TRANSISTOR |             |
| Q1208             | 2SA1162/YG/-X   | SI TRANSISTOR    |             |
| Q1209             | 2SA1015/YG/-T   | SI TRANSISTOR    |             |
| Q1211             | 2SA1162/YG/-X   | SI TRANSISTOR    |             |
| Q1213-14          | 2SC2712/YG/-X   | SI TRANSISTOR    |             |
| Q1215-16          | DTC323TK-X      | DIGI. TRANSISTOR |             |
| Q1217             | 2SA1162/YG/-X   | SI TRANSISTOR    |             |
| Q1220-21          | 2SC2712/YG/-X   | SI TRANSISTOR    |             |
| Q1303-04          | 2SA1162/YG/-X   | SI TRANSISTOR    |             |
| Q1305             | 2SC2712/YG/-X   | SI TRANSISTOR    |             |
| Q1345             | DTC124EKA-X     | DIGI. TRANSISTOR |             |
| Q1346             | 2SC2712/YG/-X   | SI TRANSISTOR    |             |
| Q1351             | DTC124EKA-X     | DIGI. TRANSISTOR |             |
| Q1381-83          | 2SC2712/YG/-X   | SI TRANSISTOR    |             |
| Q1461-62          | 2SC2712/YG/-X   | SI TRANSISTOR    |             |
| Q1601             | DTC323TK-X      | DIGI. TRANSISTOR |             |
| Q1602             | 2SA1162/YG/-X   | SI TRANSISTOR    |             |
| Q1603             | 2SC2712/YG/-X   | SI TRANSISTOR    |             |
| Q1651             | 2SA1162/YG/-X   | SI TRANSISTOR    |             |
| Q1652-53          | DTC323TK-X      | DIGI. TRANSISTOR |             |
| Q1657             | 2SC2712/YG/-X   | SI TRANSISTOR    |             |
| Q1659-60          | 2SA1162/YG/-X   | SI TRANSISTOR    |             |
| Q1701-08          | 2SC2712/YG/-X   | SI TRANSISTOR    |             |
| Q1709             | 2SA1162/YG/-X   | SI TRANSISTOR    |             |
| Q1752             | 2SA1162/YG/-X   | SI TRANSISTOR    |             |
| Q1901             | 2SA1162/YG/-X   | SI TRANSISTOR    |             |
| Q1902             | 2SC2712/YG/-X   | SI TRANSISTOR    |             |
| <b>IC</b>         |                 |                  |             |
| IC1101            | TC9090AN        | I.C. (DIGI-MOS)  |             |
| IC1301            | CXA1545AS       | I.C. (MONO-ANA)  |             |
| IC1303            | TDA9143/N3      | I.C. (MONO-ANA)  |             |
| IC1304            | TDA4665/V5      | I.C. (MONO-ANA)  |             |
| IC1305            | LA7016          | I.C. (MONO-ANA)  |             |
| IC1401            | LA7841          | I.C. (MONO-ANA)  |             |

| △ Symbol No. | Part No.        | Part Name         | Description |
|--------------|-----------------|-------------------|-------------|
| <b>IC</b>    |                 |                   |             |
| IC1551       | LA6515          | I.C. (MONO-ANA)   |             |
| IC1601       | MSP3410DPPC5-8C | I C               |             |
| IC1602       | BA4558F-X       | I.C. (MONO-ANA)   |             |
| IC1651       | TA8246AH        | I.C. (HYBRID)     |             |
| IC1701       | M37280MK-105SP  | I.C. (MICRO-COMP) |             |
| IC1702       | L78LR05E-MA     | I.C.              |             |
| IC1703       | AT24C16-32WFX1  | I.C.              | (SERVICE)   |
| IC1754       | SDA5275S        | I.C. (MICRO-PROC) |             |
| IC1755       | MSM514400D-60ZS | I.C. (D-RAM)      |             |

## OTHERS

|          |              |                  |              |
|----------|--------------|------------------|--------------|
| CN1002   | QGF1220C2-25 | FFC/FPC CONNECTO |              |
| J1651    | QNN0296-001  | PIN JACK         |              |
| K1001    | QRN143J-OROX | C R              | 0.0Ω 1/4W J  |
| K1009    | QRN143J-OROX | C R              | 0.0Ω 1/4W J  |
| K1101    | QQR0621-002Z | BEADS CORE       |              |
| K1401    | QQR0621-002Z | BEADS CORE       |              |
| K1701    | QQR0621-002Z | BEADS CORE       |              |
| LC1101   | TA78L005AP-T | I.C. (H)         |              |
| LC1601   | CE42142-103Z | EMI FILTER       |              |
| TU1001   | CEEK481-A04  | TUNER            |              |
| W1001-02 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| X1311    | CE40749-001Z | CRYSTAL          |              |
| X1312    | CE40668-001Z | CRYSTAL          |              |
| X1601    | CE42546-001Z | CRYSTAL          |              |
| X1701    | CST8.00MTW   | CER. RESONATOR   |              |
| X1752    | QAX0351-001Z | CRYSTAL          |              |
| Y1301-06 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1312-13 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1315    | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1328    | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1401    | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1502-05 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1653    | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1657-58 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1661-62 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1701-03 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1750-53 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |

## POWER & DEF PW BOARD ASS'Y (SMD-2006A-U2)

| △ Symbol No.    | Part No.      | Part Name | Description  |
|-----------------|---------------|-----------|--------------|
| <b>RESISTOR</b> |               |           |              |
| R2451           | QRE141J-272Y  | C R       | 2.7kΩ 1/4W J |
| R2455           | QRE141J-102Y  | C R       | 1kΩ 1/4W J   |
| R2456           | QRE141J-473Y  | C R       | 47kΩ 1/4W J  |
| R2457           | QRE141J-103Y  | C R       | 10kΩ 1/4W J  |
| R2458           | QRA14CF-1002Y | MF R      | 10kΩ 1/4W F  |
| R2459           | QRE141J-391Y  | C R       | 390Ω 1/4W J  |
| R2461           | QRE141J-102Y  | C R       | 1kΩ 1/4W J   |
| R2463           | QRG029J-820   | OM R      | 82 Ω 2W J    |
| R2464           | QRX01GJ-2R2   | MF R      | 2.2Ω 1W J    |
| R2465           | QRE141J-103Y  | C R       | 10kΩ 1/4W J  |
| R2468           | QRE141J-473Y  | C R       | 47kΩ 1/4W J  |
| R2470           | QRE141J-103Y  | C R       | 10kΩ 1/4W J  |
| R2501           | QRE141J-471Y  | C R       | 470Ω 1/4W J  |
| R2502           | QRE141J-123Y  | C R       | 12kΩ 1/4W J  |
| R2503           | QRE121J-152Y  | C R       | 1.5kΩ 1/2W J |
| R2504           | QRG039J-272   | OM R      | 2.7kΩ 3W J   |

| △ Symbol No.    | Part No.      | Part Name      | Description  |
|-----------------|---------------|----------------|--------------|
| <b>RESISTOR</b> |               |                |              |
| R2505           | QRG039J-332   | OM R           | 3.3kΩ 3W J   |
| R2506           | QRE121J-5R6Y  | C R            | 5.6Ω 1/2W J  |
| R2507           | QRC121K-152Z  | COMP. R        | 1.5kΩ 1/2W K |
| R2509           | QRE141J-563Y  | C R            | 56kΩ 1/4W J  |
| R2510           | QRE141J-333Y  | C R            | 33kΩ 1/4W J  |
| R2511           | QRE141J-102Y  | C R            | 1kΩ 1/4W J   |
| R2522           | QRE121J-471Y  | C R            | 470Ω 1/2W J  |
| △ R2551         | QRZ9017-4R7   | F R            | 4.7Ω 1/4W J  |
| △ R2552         | QRZ9021-1R0   | FUSI. RESISTOR | 1 Ω 1W J     |
| △ R2553         | QRZ9021-1R0   | FUSI. RESISTOR | 1 Ω 1W J     |
| R2554-55        | QRE141J-392Y  | C R            | 3.9kΩ 1/4W J |
| R2557           | QRE121J-272Y  | C R            | 2.7kΩ 1/2W J |
| R2561           | QRZ0056-103Z  | COMP. R        | 10kΩ 1/2W K  |
| R2574           | QRG029J-220   | OM R           | 22 Ω 2W J    |
| R2575           | QRE121J-123Y  | C R            | 12kΩ 1/2W J  |
| R2581           | QRF154K-4R7   | UNF R          | 4.7Ω 15W K   |
| R2582           | QRE141J-681Y  | C R            | 680Ω 1/4W J  |
| R2583           | QRE121J-682Y  | C R            | 6.8kΩ 1/2W J |
| R2584           | QRE141J-183Y  | C R            | 18kΩ 1/4W J  |
| R2585           | QRE141J-222Y  | C R            | 2.2kΩ 1/4W J |
| R2586           | QRA14CF-7501Y | MF R           | 7.5kΩ 1/4W F |
| R2587           | QRA14CF-2201Y | MF R           | 2.2kΩ 1/4W F |
| R2588           | QRE141J-103Y  | C R            | 10kΩ 1/4W J  |
| R2901           | QRF104K-3R9   | UNF R          | 3.9Ω 10W K   |
| R2902           | QRE121J-331Y  | C R            | 330Ω 1/2W J  |
| R2903-04        | QRE121J-474Y  | C R            | 470kΩ 1/2W J |
| R2905           | QRL039J-823   | OM R           | 82kΩ 3W J    |
| R2906           | QRG039J-683   | OM R           | 68kΩ 3W J    |
| △ R2907         | QRZ9017-4R7   | F R            | 4.7Ω 1/4W J  |
| R2908           | QRE121J-152Y  | C R            | 1.5kΩ 1/2W J |
| R2909           | QRT029J-R39   | MF R           | 0.39Ω 2W J   |
| R2910           | QRM059J-R22   | MP R           | 0.22 Ω 5W J  |
| R2911           | QRE121J-681Y  | C R            | 680Ω 1/2W J  |
| R2912           | QRE121J-332Y  | C R            | 3.3kΩ 1/2W J |
| R2913           | QRL039J-823   | OM R           | 82kΩ 3W J    |
| R2923           | QRE121J-102Y  | C R            | 1kΩ 1/2W J   |
| R2951           | QRF074J-102   | UNF R          | 1kΩ 7W J     |
| R2952           | QRG029J-103   | OM R           | 10kΩ 2W J    |
| R2953           | QRG029J-183   | OM R           | 18kΩ 2W J    |
| R2954           | QRE141J-330Y  | C R            | 33Ω 1/4W J   |
| R2955           | QRE141J-681Y  | C R            | 680Ω 1/4W J  |
| R2956           | QRX029J-R47   | MF R           | 0.47 Ω 2W J  |
| R2957           | QRG029J-100   | OM R           | 10 Ω 2W J    |
| R2960           | QRE141J-153Y  | C R            | 15kΩ 1/4W J  |
| R2961           | QRE141J-182Y  | C R            | 1.8kΩ 1/4W J |
| R2962           | QRE141J-153Y  | C R            | 15kΩ 1/4W J  |
| R2963           | QRE141J-682Y  | C R            | 6.8kΩ 1/4W J |
| R2968           | QRE141J-103Y  | C R            | 10kΩ 1/4W J  |
| R2969           | QRE141J-682Y  | C R            | 6.8kΩ 1/4W J |
| R2970           | QRE141J-822Y  | C R            | 8.2kΩ 1/4W J |
| R2971           | QRE141J-682Y  | C R            | 6.8kΩ 1/4W J |
| R2983           | QRE141J-122Y  | C R            | 1.2kΩ 1/4W J |
| R2984           | QRE141J-104Y  | C R            | 100kΩ 1/4W J |
| R2985-86        | QRE141J-103Y  | C R            | 10kΩ 1/4W J  |
| R2987           | QRE121J-680Y  | C R            | 68Ω 1/2W J   |
| △ R2991         | QRZ0057-825   | C R            | 8.2MΩ 1W J   |

## CAPACITOR

|       |              |         |               |
|-------|--------------|---------|---------------|
| C2451 | QCS31HJ-470Z | C CAP.  | 47pF 50V J    |
| C2452 | QFV71HJ-104Z | MF CAP. | 0.1μF 50V J   |
| C2453 | QETN1EM-476Z | E CAP.  | 47μF 25V M    |
| C2454 | QETN1HM-106Z | E CAP.  | 10μF 50V M    |
| C2455 | QFLC1HJ-102Z | M CAP.  | 1000pF 50V J  |
| C2456 | QFM72DJ-122Z | M CAP.  | 1200pF 200V J |
| C2457 | QFM72DJ-152Z | M CAP.  | 1500pF 200V J |
| C2458 | QE20472-106Z | E CAP.  | 10μF 250V M   |
| C2459 | QCZ0120-104Z | C CAP.  | 0.1μF 25V Z   |
| C2460 | QFP31HJ-272Z | PP CAP. | 2700pF 50V J  |
| C2461 | QFLC1HJ-182Z | M CAP.  | 1800pF 50V J  |
| C2501 | QCB32HK-331Z | C CAP.  | 330pF 500V K  |

| Symbol No. | Part No. | Part Name | Description |
|------------|----------|-----------|-------------|
|------------|----------|-----------|-------------|

**CAPACITOR**

|   |          |               |           |                   |
|---|----------|---------------|-----------|-------------------|
|   | C2502    | QFM72DK-103   | M CAP.    | 0.01μF 200V K     |
|   | C2503    | QFV71HJ-224Z  | MF CAP.   | 0.22μF 50V J      |
| △ | C2521    | QFZ0122-112   | MPP CAP.  | 1100pF1.8KVH ±3%  |
| △ | C2522    | QFZ0200-123   | MPP CAP.  | 0.012μF1.5KVH ±3% |
|   | C2523    | QFM72DK-393   | M CAP.    | 0.039μF 200V K    |
| △ | C2524    | QFP32JJ-223   | PP CAP.   | 0.022μF 630V J    |
|   | C2525    | QFZ0194-914   | MPP CAP.  | 0.91μF 250V J     |
|   | C2526    | QFZ0199-104   | MPP CAP.  | 0.1μF 250V J      |
|   | C2527    | QFZ0194-154   | MPP CAP.  | 0.15μF 250V J     |
|   | C2528    | QFZ0199-104   | MPP CAP.  | 0.1μF 250V J      |
|   | C2529    | QCB32HK-561Z  | C CAP.    | 560pF 500V K      |
|   | C2530    | QFZ0194-154   | MPP CAP.  | 0.15μF 250V J     |
|   | C2532    | QETM2CM-227   | E CAP.    | 220μF 160V M      |
|   | C2551    | QCB32HK-152Z  | C CAP.    | 1500pF 500V K     |
|   | C2552    | QETN1CM-108Z  | E CAP.    | 1000μF 16V M      |
|   | C2553    | QCB32HK-152Z  | C CAP.    | 1500pF 500V K     |
|   | C2554    | QETN1CM-108Z  | E CAP.    | 1000μF 16V M      |
|   | C2555    | QENC1HM-225Z  | BP E CAP. | 2.2μF 50V M       |
|   | C2556    | QCB32HK-102Z  | C CAP.    | 1000pF 500V K     |
|   | C2557    | QETN2EM-106Z  | E CAP.    | 10μF 250V M       |
|   | C2565    | QFLC2AK-223Z  | M CAP.    | 0.022μF 100V K    |
|   | C2581    | QETN1CM-107Z  | E CAP.    | 100μF 16V M       |
|   | C2582    | QETN1EM-476Z  | E CAP.    | 47μF 25V M        |
|   | C2583    | QETN2AM-106Z  | E CAP.    | 10μF 100V M       |
|   | C2584    | QETN1AM-227Z  | E CAP.    | 220μF 10V M       |
|   | C2585    | QFZ0194-534   | MPP CAP.  | 0.53μF 250V J     |
| △ | C2901    | QFZ9040-473   | MF CAP.   | 0.047μFAC275V M   |
| △ | C2902    | QCZ9054-472   | C CAP.    | 4700pFAC250V Z    |
| △ | C2903    | QCZ9054-472   | C CAP.    | 4700pFAC250V Z    |
| △ | C2904    | QCZ9054-472   | C CAP.    | 4700pFAC250V Z    |
|   | C2905    | QEZO199-227   | E CAP.    | 220μF 400V M      |
|   | C2906    | QCB32HK-103   | C CAP.    | 0.01μF 500V K     |
|   | C2907    | QCZ0122-391   | C CAP.    | 390pF 2kV K       |
|   | C2908    | QETN1HM-476Z  | E CAP.    | 47μF 50V M        |
|   | C2909    | QCB31HK-182Z  | C CAP.    | 1800pF 50V K      |
|   | C2910    | QCZ0122-561   | C CAP.    | 560pF 2kV K       |
|   | C2912    | QCB31HK-561Z  | C CAP.    | 560pF 50V K       |
|   | C2921    | QETN1EM-227Z  | E CAP.    | 220μF 25V M       |
|   | C2922-23 | QETN1HM-106Z  | E CAP.    | 10μF 50V M        |
|   | C2951    | QEZO203-227   | E CAP.    | 220μF 160V M      |
|   | C2952    | QEHQ1CM-228   | E CAP.    | 2200μF 16V M      |
|   | C2953-54 | QEHQ1CM-228   | E CAP.    | 2200μF 16V M      |
|   | C2955    | QEHRI1CM-477Z | E CAP.    | 470μF 16V M       |
|   | C2956    | QEHQ1VM-228   | E CAP.    | 2200μF 35V M      |
|   | C2959-60 | QCB32HK-102Z  | C CAP.    | 1000pF 500V K     |
|   | C2966    | QFLC1HJ-103Z  | M CAP.    | 0.01μF 50V J      |
|   | C2967    | QEHQ1CM-228   | E CAP.    | 2200μF 16V M      |
|   | C2968    | QCZ0120-104Z  | C CAP.    | 0.1μF 25V Z       |
|   | C2970    | QEHRI1CM-227Z | E CAP.    | 220μF 16V M       |
|   | C2972-73 | QEHRI1AM-477Z | E CAP.    | 470μF 10V M       |
|   | C2974-75 | QEZO256-128   | E CAP.    | 1200μF 10V M      |
|   | C2976    | QETN1AM-227Z  | E CAP.    | 220μF 10V M       |
|   | C2977    | QFV71HJ-684Z  | MF CAP.   | 0.68μF 50V J      |
|   | C2978    | QCZ0122-471   | C CAP.    | 470pF 2kV K       |
| △ | C2991    | QCZ9079-33Z   | C CAP.    | 3300pFAC250V K    |
| △ | C2992    | QCZ9079-471   | C CAP.    | 470pFAC250V K     |

**TRANSFORMER**

|   |       |                |               |           |
|---|-------|----------------|---------------|-----------|
|   | T2501 | QQR1111-001    | DRIVE TRANSF. |           |
|   | T2521 | QQR0706-001    | PINC. TRANSF. |           |
| △ | T2551 | QQH0054-002-12 | HVT           | (SERVICE) |
|   | T2561 | QQR1096-001    | DEF TRANSF.   |           |
| △ | T2901 | CETS129-001J4  | SW TRANSF.    |           |
| △ | T2921 | QQT0147-001    | POWER TRANSF. |           |

**COIL**

|  |       |             |                |
|--|-------|-------------|----------------|
|  | L2451 | QQL43AJ-33Z | CHOKE COIL     |
|  | L2452 | QQLZ020-801 | CHOKE COIL     |
|  | L2521 | QQLZ025-180 | CHOKE COIL     |
|  | L2522 | QQR0961-002 | LINEARITY COIL |
|  | L2551 | QQLZ026-540 | HEATER CHOKE   |

| Symbol No. | Part No. | Part Name | Description |
|------------|----------|-----------|-------------|
|------------|----------|-----------|-------------|

**COIL**

|   |          |              |              |        |
|---|----------|--------------|--------------|--------|
|   | L2561    | QQL43AJ-22Z  | CHOKE COIL   | 2200μH |
|   | L2901-02 | QQL401K-100Z | CHOKE COIL   |        |
| △ | L2903    | QQR0646-003  | CHOKE COIL   |        |
|   | L2951    | QQLZ026-460  | HEATER CHOKE |        |
|   | L2952-54 | QQLZ6AK-220Z | CHOKE COIL   |        |
|   | L2955    | QQR0518-001  | CHOKE COIL   |        |
|   | L2956    | QQLZ026-460  | HEATER CHOKE |        |
|   | L2957    | QQLZ6AK-220Z | CHOKE COIL   |        |

**DIODE**

|   |          |             |              |
|---|----------|-------------|--------------|
|   | D2451    | 1SS133-T2   | SI. DIODE    |
|   | D2454    | BYD33D-T3   | SI. DIODE    |
|   | D2501    | 1SS81-T5    | SI. DIODE    |
|   | D2502    | 1SS133-T2   | SI. DIODE    |
|   | D2503    | MTZJ15B-T2  | ZENER DIODE  |
|   | D2521    | V11CA-C1    | SI. DIODE    |
|   | D2522    | FMV-3FU-F1  | SI. DIODE    |
|   | D2551-52 | BYW95B-20   | SI. DIODE    |
|   | D2553    | BYD33G-T3   | SI. DIODE    |
|   | D2554    | MTZJ4.7A-T2 | ZENER DIODE  |
|   | D2555-56 | BYD33G-T3   | SI. DIODE    |
|   | D2581    | MTZJ15B-T2  | ZENER DIODE  |
|   | D2582    | MTZJ7.5B-T2 | ZENER DIODE  |
|   | D2583    | MTZJ7.5S-T2 | ZENER DIODE  |
|   | D2584    | BYD33G-T3   | SI. DIODE    |
| △ | D2901    | D3SB60      | BRIDGE DIODE |
|   | D2902    | BYD33M-T3   | SI. DIODE    |
| △ | D2903    | BYD33D-T3   | SI. DIODE    |
|   | D2904    | BYD33D-T3   | SI. DIODE    |
|   | D2905    | 1SS133-T2   | SI. DIODE    |
|   | D2907    | MTZJ15B-T2  | ZENER DIODE  |
|   | D2921-24 | 1N4003-T2   | SI. DIODE    |
|   | D2925    | MTZJ10B-T2  | ZENER DIODE  |
|   | D2951    | RU4B-F1     | SI. DIODE    |
|   | D2953    | FMX-G12S    | SI. DIODE    |
|   | D2954    | BYW95B-20   | SI. DIODE    |
|   | D2955    | SF6L20U     | SI. DIODE    |
|   | D2958    | BYD33M-T3   | SI. DIODE    |
|   | D2959    | RK44-LFT4   | SI. DIODE    |
|   | D2960    | MTZJ33B-T2  | ZENER DIODE  |
|   | D2961-62 | 1SS133-T2   | SI. DIODE    |
|   | D2964-66 | 1SS133-T2   | SI. DIODE    |
|   | D2981-82 | 1SS133-T2   | SI. DIODE    |

**TRANSISTOR**

|   |          |               |                  |        |
|---|----------|---------------|------------------|--------|
|   | Q2452    | 2SK2459N-F54  | F.E.T.           |        |
|   | Q2453    | 2SC1815/YG/-T | SI. TRANSISTOR   |        |
|   | Q2501    | BSN304-T      | F.E.T.           |        |
|   | Q2502    | 2SC1815/YG/-T | SI. TRANSISTOR   |        |
| △ | Q2521    | 2SC5552-RL    | SI. TRANSISTOR   | H. OUT |
|   | Q2581    | 2SA949/Y/Z1-T | SI. TRANSISTOR   |        |
|   | Q2582    | DTC144ESA-T   | DIGI. TRANSISTOR |        |
|   | Q2583    | 2SC1815/YG/-T | SI. TRANSISTOR   |        |
|   | Q2921    | 2SC2655/Y/-T  | SI. TRANSISTOR   |        |
|   | Q2981-82 | 2SC1815/YG/-T | SI. TRANSISTOR   |        |

**IC**

|  |        |            |                 |
|--|--------|------------|-----------------|
|  | IC2451 | BA10393    | IC              |
|  | IC2901 | STR-F6668B | I C             |
|  | IC2951 | SE140N     | I.C. (HYBRID)   |
|  | IC2952 | BA12T      | I.C. (MONO-ANA) |
|  | IC2953 | SI-8050S   | I.C. (HYBRID)   |
|  | IC2954 | BA033T     | I.C. (MONO-ANA) |
|  | IC2955 | UPC2409AHF | I.C. (MONO-ANA) |
|  | IC2956 | BA08T      | I C             |

**OTHERS**

|   |        |             |              |
|---|--------|-------------|--------------|
| △ | CP2953 | ICP-N75-Y   | I.C. PROTECT |
|   | K2521  | CE4183Z-001 | LEAD CORE    |

| △ Symbol No.  | Part No.       | Part Name         | Description |
|---------------|----------------|-------------------|-------------|
| <b>OTHERS</b> |                |                   |             |
| K2523-25      | CE41832-001    | LEAD CORE         |             |
| K2901-02      | CE42050-001Z   | CORE              |             |
| K2951         | QQR0679-001    | FERRITE BEADS     |             |
| K2952         | QQR0621-002Z   | BEADS CORE        |             |
| K2953         | QQR0716-001Z   | LEAD CORE         |             |
| △ PC2901      | TLF721F(D4-GR) | I.C. (PH.COUPLER) |             |
| △ RY2981      | QSK0086-001    | RELAY             |             |
| △ TH2901      | QAD0120-9R0    | P THERMISTOR      |             |

### CRT SOCKET PW BOARD ASS'Y (SMD-3006A-U2)

| △ Symbol No.    | Part No.     | Part Name | Description  |
|-----------------|--------------|-----------|--------------|
| <b>RESISTOR</b> |              |           |              |
| R3101           | QRE141J-272Y | C R       | 2.7kΩ 1/4W J |
| R3102           | QRE141J-153Y | C R       | 15kΩ 1/4W J  |
| R3103           | QRE141J-152Y | C R       | 1.5kΩ 1/4W J |
| R3104           | QRE141J-680Y | C R       | 68Ω 1/4W J   |
| R3105           | QRE141J-221Y | C R       | 220Ω 1/4W J  |
| △ R3107-08      | QRE141J-470Y | C R       | 47Ω 1/4W J   |
| R3109           | QRZ9021-561  | F R       | 560Ω 1W J    |
| R3110           | QRE141J-122Y | C R       | 1.2kΩ 1/4W J |
| R3111           | QRE141J-390Y | C R       | 39Ω 1/4W J   |
| R3112           | QRE141J-2R7Y | C R       | 2.7Ω 1/4W J  |
| R3113-14        | QRE141J-563Y | C R       | 56kΩ 1/4W J  |
| R3115           | QRE141J-122Y | C R       | 1.2kΩ 1/4W J |
| R3116           | QRE141J-2R7Y | C R       | 2.7Ω 1/4W J  |
| R3117           | QRE141J-390Y | C R       | 39Ω 1/4W J   |
| R3118           | QRE141J-121Y | C R       | 120Ω 1/4W J  |
| R3119           | QRL029J-391  | OM R      | 390Ω 2W J    |
| R3130           | QRE141J-101Y | C R       | 100Ω 1/4W J  |
| R3131           | QRG01GJ-101  | OM R      | 100Ω 1W J    |
| R3204-06        | QRE141J-152Y | C R       | 1.5kΩ 1/4W J |
| R3207           | QRE141J-562Y | C R       | 5.6kΩ 1/4W J |
| R3208           | QRE141J-123Y | C R       | 12kΩ 1/4W J  |
| R3211           | QRE141J-334Y | C R       | 330kΩ 1/4W J |
| R3223-25        | QRE141J-182Y | C R       | 1.8kΩ 1/4W J |
| R3227           | QRE141J-272Y | C R       | 2.7kΩ 1/4W J |
| R3228           | QRE141J-822Y | C R       | 8.2kΩ 1/4W J |
| R3229-31        | QRG01GJ-823  | OM R      | 82kΩ 1W J    |
| R3232-34        | QRE141J-332Y | C R       | 3.3kΩ 1/4W J |
| R3235-37        | QRC121K-152Z | COMP.R    | 1.5kΩ 1/2W K |
| R3239           | QRZ0107-474Z | C R       | 470kΩ 1/2W K |
| R3241           | QRZ0107-105Z | C R       | 1MΩ 1/2W K   |
| R3301-02        | QRE121J-474Y | C R       | 470kΩ 1/2W J |
| R3303-04        | QRE141J-223Y | C R       | 22kΩ 1/4W J  |
| R3305           | QRE141J-562Y | C R       | 5.6kΩ 1/4W J |
| R3306           | QRE141J-392Y | C R       | 3.9kΩ 1/4W J |
| R3307           | QRE141J-101Y | C R       | 100Ω 1/4W J  |
| R3308           | QRE141J-471Y | C R       | 470Ω 1/4W J  |
| R3309           | QRE141J-120Y | C R       | 12Ω 1/4W J   |
| R3310           | QRE141J-331Y | C R       | 330Ω 1/4W J  |
| R3311-12        | QRE141J-472Y | C R       | 4.7kΩ 1/4W J |
| R3313           | QRE141J-102Y | C R       | 1kΩ 1/4W J   |
| R3315           | QRE121J-105Y | C R       | 1MΩ 1/2W J   |

### CAPACITOR

|       |              |        |             |
|-------|--------------|--------|-------------|
| C3101 | QETN1HM-106Z | E CAP. | 10μF 50V M  |
| C3103 | QETN1HM-335Z | E CAP. | 3.3μF 50V M |
| C3104 | QETN1CM-107Z | E CAP. | 100μF 16V M |

| △ Symbol No.     | Part No.     | Part Name | Description     |
|------------------|--------------|-----------|-----------------|
| <b>CAPACITOR</b> |              |           |                 |
| C3107            | QETN2CM-106Z | E CAP.    | 10μF 160V M     |
| C3108-09         | QCB32HK-472Z | C CAP.    | 4700pF 500V K   |
| C3110            | QETN2CM-106Z | E CAP.    | 10μF 160V M     |
| C3111-12         | QETN1AM-107Z | E CAP.    | 100μF 10V M     |
| C3113            | QETN1AM-337Z | E CAP.    | 330μF 10V M     |
| C3118            | QENC1HM-106Z | BP E CAP. | 10μF 50V M      |
| C3201-03         | QCS31HJ-8R0Z | C CAP.    | 8.0pF 50V J     |
| C3204            | QCZ0120-104Z | C CAP.    | 0.1μF 25V Z     |
| C3205            | QCZ0120-104Z | C CAP.    | 0.1μF 25V Z     |
| C3206            | QCZ0120-104Z | C CAP.    | 0.1μF 25V Z     |
| C3207-09         | QETN1EM-476Z | E CAP.    | 47μF 25V M      |
| C3210-12         | QFK62EK-104Z | MM CAP.   | 0.1μF 250V K    |
| C3213-15         | QCS31HJ-181Z | C CAP.    | 180pF 50V J     |
| C3216            | QETN1CM-107Z | E CAP.    | 100μF 16V M     |
| C3218            | QETM2EM-336  | E CAP.    | 33μF 250V M     |
| C3219            | QFZ0097-223  | M M CAP.  | 0.022μF 1250V K |
| C3221            | QETN2EM-106Z | E CAP.    | 10μF 250V M     |
| C3301            | QETN1CM-107Z | E CAP.    | 100μF 16V M     |
| C3302            | QFLC1HJ-103Z | M CAP.    | 0.01μF 50V J    |

### COIL

|          |              |              |        |
|----------|--------------|--------------|--------|
| L3201-03 | QQL244K-4R7Z | PEAKING COIL | 4.7μH  |
| L3301    | QQL26AJ-102Z | PEAKING COIL | 1000μH |

### DIODE

|          |                |          |  |
|----------|----------------|----------|--|
| D3101-02 | RH1S-T3        | SI.DIODE |  |
| D3151    | 1SS133-T2      | SI.DIODE |  |
| D3204-06 | EU01N-T2       | SI.DIODE |  |
| D3208-10 | 1SR124-400A-T2 | SI.DIODE |  |
| D3301-03 | 1SS133-T2      | SI.DIODE |  |

### TRANSISTOR

|          |                |               |  |
|----------|----------------|---------------|--|
| Q3102    | 2SC3311A/QR/-T | SI.TRANSISTOR |  |
| Q3103    | 2SC1627A/OY/-T | SI.TRANSISTOR |  |
| Q3105    | 2SA1837        | SI.TRANSISTOR |  |
| Q3106    | 2SC4793        | SI.TRANSISTOR |  |
| Q3301    | 2SA1015/YG/-T  | SI.TRANSISTOR |  |
| Q3302    | 2SC2655/Y/-T   | SI.TRANSISTOR |  |
| Q3303    | 2SA1015/YG/-T  | SI.TRANSISTOR |  |
| Q3304-05 | 2SC3311A/QR/-T | SI.TRANSISTOR |  |

### IC

|           |          |                 |  |
|-----------|----------|-----------------|--|
| IC3201-03 | TDA6111Q | I.C. (MONO-ANA) |  |
|-----------|----------|-----------------|--|

### OTHERS

|          |              |               |  |
|----------|--------------|---------------|--|
| K3101    | CE41492-001Z | CHOKE COIL    |  |
| K3103-04 | CE41492-001Z | CHOKE COIL    |  |
| K3105    | QQR0621-002Z | BEADS CORE    |  |
| △ SK3001 | CE42670-001  | C.R.T. SOCKET |  |

**FRONT CNOTROL PW BOARD ASS'Y  
(SMD-8007A-U2)**

| △ Symbol No.    | Part No.     | Part Name | Description  |
|-----------------|--------------|-----------|--------------|
| <b>RESISTOR</b> |              |           |              |
| R8003           | QRE141J-222Y | C R       | 2.2kΩ 1/4W J |
| R8004           | QRE141J-472Y | C R       | 4.7kΩ 1/4W J |
| R8005           | QRE141J-561Y | C R       | 560Ω 1/4W J  |
| R8008           | QRE141J-682Y | C R       | 6.8kΩ 1/4W J |
| R8020           | QRE141J-562Y | C R       | 5.6kΩ 1/4W J |
| R8039           | QRE141J-821Y | C R       | 820Ω 1/4W J  |

|                  |              |         |                |
|------------------|--------------|---------|----------------|
| <b>CAPACITOR</b> |              |         |                |
| C8003            | QETN1HM-106Z | E CAP.  | 10μF 50V M     |
| C8004            | QCZ0120-104Z | C CAP.  |                |
| C8005            | QETN1EM-476Z | E CAP.  | 47μF 25V M     |
| C8022            | QETN1EM-476Z | E CAP.  | 47μF 25V M     |
| △ C8901          | QFZ9040-474  | MF CAP. | 0.47μFAC275V M |

|              |             |             |  |
|--------------|-------------|-------------|--|
| <b>DIODE</b> |             |             |  |
| D8007        | P1241-04    | C.D.S.      |  |
| D8008        | 1S5133-T2   | SI.DIODE    |  |
| D8010        | SPR-39MWF   | L.E.D.      |  |
| D8011        | 1S5133-T2   | SI.DIODE    |  |
| D8014        | MTZJ6.8A-T2 | ZENER DIODE |  |

|                   |               |                  |  |
|-------------------|---------------|------------------|--|
| <b>TRANSISTOR</b> |               |                  |  |
| Q8001             | 2SA1015/YG/-T | SI TRANSISTOR    |  |
| Q8002             | DTC144ESA-T   | DIGI. TRANSISTOR |  |
| Q8003-04          | DTA144ESA-T   | DIGI. TRANSISTOR |  |

|           |           |                 |  |
|-----------|-----------|-----------------|--|
| <b>IC</b> |           |                 |  |
| IC8001    | GPI1U281Q | IFR DETECT UNIT |  |

|               |                |                  |            |
|---------------|----------------|------------------|------------|
| <b>OTHERS</b> |                |                  |            |
|               | CH35921-005-H  | CDS HOLDER       |            |
|               | LC30349-001A-H | L.E.D.HOLDER     |            |
| △ CN8002      | QGF1220C2-25   | FFC/FPC CONNECTO |            |
| △ F8901       | QMF51D2-3R15J1 | FUSE             | 3.15A      |
| △ LF8901      | QQR1095-001    | LINE FILTER      |            |
| △ LF8902      | QQR1095-001    | LINE FILTER      |            |
| △ S8901       | QSW0824-001    | PUSH SWITCH      | MAIN POWER |

**SIDE CONTROL JACK PW BOARD ASS'Y  
(SMD-8107A-U2)**

| △ Symbol No.    | Part No.     | Part Name | Description  |
|-----------------|--------------|-----------|--------------|
| <b>RESISTOR</b> |              |           |              |
| R8001-02        | QRE121J-271Y | C R       | 270Ω 1/2W J  |
| R8009           | QRE141J-105Y | C R       | 1MΩ 1/4W J   |
| R8010           | QRE141J-183Y | C R       | 18kΩ 1/4W J  |
| R8011           | QRE141J-123Y | C R       | 12kΩ 1/4W J  |
| R8012           | QRE141J-273Y | C R       | 27kΩ 1/4W J  |
| R8013           | QRE141J-332Y | C R       | 3.3kΩ 1/4W J |
| R8014           | QRE141J-123Y | C R       | 12kΩ 1/4W J  |
| R8021-22        | QRE141J-102Y | C R       | 1kΩ 1/4W J   |

| △ Symbol No.     | Part No.     | Part Name | Description  |
|------------------|--------------|-----------|--------------|
| <b>CAPACITOR</b> |              |           |              |
| C8001-02         | QFLC1HJ-103Z | M CAP.    | 0.01μF 50V J |
| C8010-11         | QFLC1HJ-472Z | M CAP.    | 4700pF 50V J |
| C8021            | QCZ0120-104Z | C CAP.    | 0.1μF 25V Z  |

|             |              |              |       |
|-------------|--------------|--------------|-------|
| <b>COIL</b> |              |              |       |
| L8001       | QQR0716-001Z | LEAD CORE    |       |
| L8002-03    | QQL211K-5R6Y | PEAKING COIL | 5.6μH |
| L8010-11    | QQL211K-270Y | PEAKING COIL | 27μH  |
| L8012       | QQR0716-001Z | LEAD CORE    |       |

|               |              |             |         |
|---------------|--------------|-------------|---------|
| <b>OTHERS</b> |              |             |         |
| J8001         | QNS0169-001  | 3.5 JACK    |         |
| J8003         | QNZ0438-001  | JACK        |         |
| S8001         | QSW0619-003Z | PUSH SWITCH | MENU    |
| S8002         | QSW0619-003Z | PUSH SWITCH | CH DOWN |
| S8003         | QSW0619-003Z | PUSH SWITCH | CH UP   |

**BBE PW BOARD ASS'Y (SMD0A001A-U2)**

| △ Symbol No.    | Part No.     | Part Name | Description  |
|-----------------|--------------|-----------|--------------|
| <b>RESISTOR</b> |              |           |              |
| R0101-02        | QRE141J-223Y | C R       | 22kΩ 1/4W J  |
| R0106-07        | QRE141J-223Y | C R       | 22kΩ 1/4W J  |
| R0108           | QRE141J-103Y | C R       | 10kΩ 1/4W J  |
| R0113           | QRE141J-103Y | C R       | 10kΩ 1/4W J  |
| R0115           | QRE141J-103Y | C R       | 10kΩ 1/4W J  |
| R0116           | QRE141J-273Y | C R       | 27kΩ 1/4W J  |
| R0117           | QRE141J-822Y | C R       | 8.2kΩ 1/4W J |
| R0118           | QRE141J-273Y | C R       | 27kΩ 1/4W J  |
| R0119           | QRE141J-822Y | C R       | 8.2kΩ 1/4W J |

|                  |              |           |               |
|------------------|--------------|-----------|---------------|
| <b>CAPACITOR</b> |              |           |               |
| C0101            | QFLC1HJ-332Z | M CAP.    | 3300pF 50V J  |
| C0102            | QFLC1HJ-333Z | M CAP.    | 0.033μF 50V J |
| C0103            | QENC1HM-475Z | BP E CAP. | 4.7μF 50V M   |
| C0104            | QETN1HM-106Z | E CAP.    | 10μF 50V M    |
| C0105            | QETN1EM-476Z | E CAP.    | 47μF 25V M    |
| C0107            | QFV71HJ-104Z | MF CAP.   | 0.1μF 50V J   |
| C0108            | QFLC1HJ-332Z | M CAP.    | 3300pF 50V J  |
| C0109            | QFLC1HJ-333Z | M CAP.    | 0.033μF 50V J |
| C0110            | QENC1HM-475Z | BP E CAP. | 4.7μF 50V M   |
| C0112            | QETN1HM-476Z | E CAP.    | 47μF 50V M    |
| C0114-15         | QETN1HM-106Z | E CAP.    | 10μF 50V M    |

|           |           |                 |  |
|-----------|-----------|-----------------|--|
| <b>IC</b> |           |                 |  |
| IC0101    | NJM2150AD | I.C. (MONO-ANA) |  |

|               |              |      |  |
|---------------|--------------|------|--|
| <b>OTHERS</b> |              |      |  |
| CN0001        | QGB3501K1-40 | PLUG |  |

IF PW BOARD ASS'Y (SMD0F003A-U2)

| △ Symbol No. | Part No.     | Part Name | Description   |
|--------------|--------------|-----------|---------------|
| RESISTOR     |              |           |               |
| R0020        | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R0021        | NRSA02J-122X | MG R      | 1.2kΩ 1/10W J |
| R0022        | NRSA02J-331X | MG R      | 330Ω 1/10W J  |
| R0023        | NRSA02J-680X | MG R      | 68Ω 1/10W J   |
| R0024        | NRSA02J-330X | MG R      | 33Ω 1/10W J   |
| R0025        | NRSA02J-682X | MG R      | 6.8kΩ 1/10W J |
| R0026        | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R0030-31     | NRSA02J-150X | MG R      | 15Ω 1/10W J   |
| R0050-51     | NRSA02J-121X | MG R      | 120Ω 1/10W J  |
| R0052-53     | NRSA02J-561X | MG R      | 560Ω 1/10W J  |
| R0057        | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R0058        | NRSA02J-272X | MG R      | 2.7kΩ 1/10W J |
| R0059        | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R0060-61     | NRSA02J-471X | MG R      | 470Ω 1/10W J  |
| R0062        | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R0063        | NRSA02J-822X | MG R      | 8.2kΩ 1/10W J |
| R0064        | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R0065        | NRSA02J-470X | MG R      | 47Ω 1/10W J   |
| R0070-71     | NRSA02J-393X | MG R      | 39kΩ 1/10W J  |
| R0080-81     | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R0082        | NRSA02J-272X | MG R      | 2.7kΩ 1/10W J |
| R0101        | NRSA02J-822X | MG R      | 8.2kΩ 1/10W J |
| R0102        | NRSA02J-471X | MG R      | 470Ω 1/10W J  |
| R0103        | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R0104        | NRSA02J-121X | MG R      | 120Ω 1/10W J  |
| R0105        | NRSA02J-151X | MG R      | 150Ω 1/10W J  |
| R0106        | NRSA02J-181X | MG R      | 180Ω 1/10W J  |
| R0107        | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R0108        | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R0109        | NRSA02J-181X | MG R      | 180Ω 1/10W J  |
| R0111-12     | NRSA02J-151X | MG R      | 150Ω 1/10W J  |
| R0113        | NRSA02J-391X | MG R      | 390Ω 1/10W J  |
| R0114        | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R0116        | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R0117        | NRSA02J-332X | MG R      | 3.3kΩ 1/10W J |
| R0120        | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R0122-24     | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R0140        | NRSA02J-474X | MG R      | 470kΩ 1/10W J |
| R0141        | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R0142        | NRSA02J-391X | MG R      | 390Ω 1/10W J  |
| R0143        | NRSA02J-750X | MG R      | 75Ω 1/10W J   |
| R0144        | NRSA02J-474X | MG R      | 470kΩ 1/10W J |
| R0145        | NRSA02J-332X | MG R      | 3.3kΩ 1/10W J |
| R0146        | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R0601        | NRSA02J-822X | MG R      | 8.2kΩ 1/10W J |
| R0602        | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R0603        | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R0604        | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R0605-06     | NRSA02J-392X | MG R      | 3.9kΩ 1/10W J |
| R0607-08     | NRSA02J-562X | MG R      | 5.6kΩ 1/10W J |
| △ R0609      | QRZ9017-470  | F R       | 47Ω 1/4W J    |

CAPACITOR

|          |              |        |        |     |   |
|----------|--------------|--------|--------|-----|---|
| C0020-25 | NCB21HK-472X | C CAP. | 4700pF | 50V | K |
| C0026    | NCB21HK-472X | C CAP. | 4700pF | 50V | K |
| C0031-32 | NCB21HK-472X | C CAP. | 4700pF | 50V | K |
| C0040    | NCB21HK-682X | C CAP. | 6800pF | 50V | K |
| C0041    | QETN1CM-107Z | E CAP. | 100μF  | 16V | M |
| C0042    | NCB21HK-103X | C CAP. | 0.01μF | 50V | K |
| C0043    | QETN1CM-107Z | E CAP. | 100μF  | 16V | M |
| C0044    | NCB21HK-103X | C CAP. | 0.01μF | 50V | K |
| C0046    | NCB21HK-103X | C CAP. | 0.01μF | 50V | K |
| C0047    | QETN1CM-227Z | E CAP. | 220μF  | 16V | M |
| C0050    | QETN1HM-105Z | E CAP. | 1μF    | 50V | M |
| C0051    | NCB21HK-472X | C CAP. | 4700pF | 50V | K |
| C0053    | NDC21HJ-6R0X | C CAP. | 6.0pF  | 50V | J |
| C0054    | NCB21HK-103X | C CAP. | 0.01μF | 50V | K |
| C0055    | QETN1CM-107Z | E CAP. | 100μF  | 16V | M |
| C0056    | QETN1HM-474Z | E CAP. | 0.47μF | 50V | M |

| △ Symbol No. | Part No.       | Part Name       | Description   |
|--------------|----------------|-----------------|---------------|
| CAPACITOR    |                |                 |               |
| C0057        | NDC21HJ-102X   | C CAP.          | 1000pF 50V J  |
| C0058        | NCB21HK-472X   | C CAP.          | 4700pF 50V K  |
| C0060        | NDC21HJ-120X   | C CAP.          | 12pF 50V J    |
| C0061        | NDC21HJ-7R0X   | C CAP.          | 7.0pF 50V J   |
| C0062        | QETN1HM-474Z   | E CAP.          | 0.47μF 50V M  |
| C0063        | NCB21HK-103X   | C CAP.          | 0.01μF 50V K  |
| C0064        | NCB21HK-472X   | C CAP.          | 4700pF 50V K  |
| C0065        | QETN1HM-105Z   | E CAP.          | 1μF 50V M     |
| C0067        | NDC21HJ-120X   | C CAP.          | 12pF 50V J    |
| C0069-70     | NCB21HK-103X   | C CAP.          | 0.01μF 50V K  |
| C0071        | QETN1HM-336Z   | E CAP.          | 33μF 50V M    |
| C0080-81     | NCB21HK-472X   | C CAP.          | 4700pF 50V K  |
| C0101        | QETN1CM-476Z   | E CAP.          | 47μF 16V M    |
| C0102        | NDC21HJ-221X   | C CAP.          | 220pF 50V J   |
| C0103-04     | NDC21HJ-121X   | C CAP.          | 120pF 50V J   |
| C0105        | NCB21HK-103X   | C CAP.          | 0.01μF 50V K  |
| C0140        | QETN1HM-335Z   | E CAP.          | 3.3μF 50V M   |
| C0141        | NDC21HJ-561X   | C CAP.          | 560pF 50V J   |
| C0142        | QETN1HM-105Z   | E CAP.          | 1μF 50V M     |
| C0143        | QFLC1HJ-683Z   | M CAP.          | 0.068μF 50V J |
| C0144        | QETN1HM-335Z   | E CAP.          | 3.3μF 50V M   |
| C0145        | NCB21HK-222X   | C CAP.          | 2200pF 50V K  |
| C0601        | QFLC1HJ-183Z   | M CAP.          | 0.018μF 50V J |
| C0602        | QETN1CM-476Z   | E CAP.          | 47μF 16V M    |
| C0603        | QETN1HM-106Z   | E CAP.          | 10μF 50V M    |
| C0604        | QETN1HM-105Z   | E CAP.          | 1μF 50V M     |
| C0605        | QETN1CM-477Z   | E CAP.          | 470μF 16V M   |
| C0606        | NCB21HK-103X   | C CAP.          | 0.01μF 50V K  |
| TRANSFORMER  |                |                 |               |
| T0020        | QQR0626-001    | I.F. TRANSF.    |               |
| T0050        | CELT001-307    | C.WAVE TRANSF.  |               |
| T0051        | CELT001-306    | C.WAVE TRANSF.  |               |
| COIL         |                |                 |               |
| L0020        | QQLZ014-R47    | PEAKING COIL    | 0.47μH        |
| L0021        | NQL011K-1R5X   | COIL            | 1.5μH         |
| L0040        | NQL024J-120X   | COIL            | 12μH          |
| L0042        | NQL024J-330X   | COIL            | 33μH          |
| L0050-53     | NQL011K-8R2X   | COIL            | 8.2μH         |
| L0054        | NQL024J-330X   | COIL            | 33μH          |
| L0070        | NQL011K-5R6X   | COIL            | 5.6μH         |
| L0101        | NQL011K-6R8X   | COIL            | 6.8μH         |
| L0102-03     | NQL011K-100X   | COIL            | 10μH          |
| L0104        | NQL011K-8R2X   | COIL            | 8.2μH         |
| DIODE        |                |                 |               |
| D0021        | DAN235K-X      | CHIP DIODE      |               |
| D0050-51     | DAN235K-X      | CHIP DIODE      |               |
| TRANSISTOR   |                |                 |               |
| Q0012        | 2SC5083/L-P/-T | SI.TRANSISTOR   |               |
| Q0080        | 2SC2712/YG/-X  | SI.TRANSISTOR   |               |
| Q0101        | 2SC2712/YG/-X  | SI.TRANSISTOR   |               |
| Q0102        | 2SA1162/YG/-X  | SI.TRANSISTOR   |               |
| Q0103        | DTC144EKA-X    | DIGI.TRANSISTOR |               |
| Q0104        | 2SC2712/YG/-X  | SI.TRANSISTOR   |               |
| Q0106        | 2SC2712/YG/-X  | SI.TRANSISTOR   |               |
| Q0107        | 2SA1162/YG/-X  | SI.TRANSISTOR   |               |
| Q0108        | DTC144EKA-X    | DIGI.TRANSISTOR |               |
| Q0109-11     | 2SC2712/YG/-X  | SI.TRANSISTOR   |               |
| Q0120        | DTC124EKA-X    | DIGI.TRANSISTOR |               |
| Q0122-26     | DTC144EKA-X    | DIGI.TRANSISTOR |               |
| Q0601-02     | 2SC2712/YG/-X  | SI.TRANSISTOR   |               |

| Symbol No.    | Part No.     | Part Name       | Description  |
|---------------|--------------|-----------------|--------------|
| <b>IC</b>     |              |                 |              |
| IC0010        | TA8865BN     | I.C. (MONO-ANA) |              |
| <b>OTHERS</b> |              |                 |              |
| CF0010-11     | QAX0619-001  | C TRAP          |              |
| CF0100        | TP55.5MW     | CERAMIC FILTER  |              |
| CF0140        | CSB503F30-T2 | CER. RESONATOR  |              |
| SF0010        | QAX0531-001  | SAW FILTER      |              |
| SF0011        | QAX0621-001  | SAW FILTER      |              |
| TC0052        | QAT7004-100  | TRIM. CAP.      | 10pF 100V    |
| TC0059        | QAT7004-100  | TRIM. CAP.      | 10pF 100V    |
| W0008         | NRSA02J-OROX | MG R            | 0.0Ω 1/10W J |
| W0013         | NRSA02J-OROX | MG R            | 0.0Ω 1/10W J |
| W0015         | NRSA02J-OROX | MG R            | 0.0Ω 1/10W J |
| W0025-26      | NRSA02J-OROX | MG R            | 0.0Ω 1/10W J |
| W0028-29      | NRSA02J-OROX | MG R            | 0.0Ω 1/10W J |
| W0031-32      | NRSA02J-OROX | MG R            | 0.0Ω 1/10W J |
| W0036         | NRSA02J-OROX | MG R            | 0.0Ω 1/10W J |
| W0073-75      | NRSA02J-OROX | MG R            | 0.0Ω 1/10W J |
| W0094-99      | NRSA02J-OROX | MG R            | 0.0Ω 1/10W J |
| Y0002         | NRSA02J-OROX | MG R            | 0.0Ω 1/10W J |

### AV TERMINAL PW BOARD ASS'Y (SMD0J003A-U2)

| Symbol No.       | Part No.     | Part Name    | Description  |
|------------------|--------------|--------------|--------------|
| <b>RESISTOR</b>  |              |              |              |
| R0104            | QRE141J-750Y | C R          | 75Ω 1/4W J   |
| R0106            | QRE141J-750Y | C R          | 75Ω 1/4W J   |
| R0108            | QRE141J-750Y | C R          | 75Ω 1/4W J   |
| R0112            | QRE141J-750Y | C R          | 75Ω 1/4W J   |
| R0204            | QRE141J-750Y | C R          | 75Ω 1/4W J   |
| R0304            | QRE141J-750Y | C R          | 75Ω 1/4W J   |
| <b>CAPACITOR</b> |              |              |              |
| C0102-04         | QEK1CM-106Z  | E CAP.       | 10μF 16V M   |
| C0105-08         | QCB31HK-472Z | C CAP.       | 4700pF 50V K |
| C0109            | QETN1AM-108Z | E CAP.       | 1000μF 10V M |
| C0202            | QCB31HK-103Z | C CAP.       | 0.01μF 50V K |
| C0203-06         | QCB31HK-472Z | C CAP.       | 4700pF 50V K |
| C0209            | QETN1AM-108Z | E CAP.       | 1000μF 10V M |
| C0302            | QCB31HK-103Z | C CAP.       | 0.01μF 50V K |
| C0305-06         | QCB31HK-472Z | C CAP.       | 4700pF 50V K |
| <b>COIL</b>      |              |              |              |
| L0101-04         | QQL211K-5R6Y | PEAKING COIL | 5.6μH        |
| L0105            | QQR0716-001Z | LEAD CORE    |              |
| L0201-04         | QQL211K-5R6Y | PEAKING COIL | 5.6μH        |
| L0205            | QQR0716-001Z | LEAD CORE    |              |
| L0301-02         | QQL211K-5R6Y | PEAKING COIL | 5.6μH        |
| L0303            | QQR0716-001Z | LEAD CORE    |              |
| <b>DIODE</b>     |              |              |              |
| D0101-05         | MTZJ13B-T2   | ZENER DIODE  |              |

| Symbol No.    | Part No.     | Part Name       | Description |
|---------------|--------------|-----------------|-------------|
| <b>OTHERS</b> |              |                 |             |
| CN0008        | QGB2004N1-35 | HQF CONNECTOR   |             |
| J0001-03      | CE40529-006  | SCART CONNECTOR |             |

### SUB MICON & AUTO PANORAMA PW BOARD ASS'Y (SMD0W003A-U2)

| Symbol No.       | Part No.     | Part Name        | Description   |
|------------------|--------------|------------------|---------------|
| <b>RESISTOR</b>  |              |                  |               |
| R0001            | NRSA02J-101X | MG R             | 100Ω 1/10W J  |
| R0002            | NRSA02J-104X | MG R             | 100kΩ 1/10W J |
| R0003            | NRSA02J-393X | MG R             | 39kΩ 1/10W J  |
| R0004            | NRSA02J-332X | MG R             | 3.3kΩ 1/10W J |
| R0005-07         | NRSA02J-102X | MG R             | 1kΩ 1/10W J   |
| R0008            | NRSA02J-472X | MG R             | 4.7kΩ 1/10W J |
| R0009            | NRSA02J-331X | MG R             | 330Ω 1/10W J  |
| R0010            | NRSA02J-102X | MG R             | 1kΩ 1/10W J   |
| R0011            | NRSA02J-332X | MG R             | 3.3kΩ 1/10W J |
| R0012            | NRSA02J-272X | MG R             | 2.7kΩ 1/10W J |
| R0020-26         | NRSA02J-102X | MG R             | 1kΩ 1/10W J   |
| R0045            | NRSA02J-472X | MG R             | 4.7kΩ 1/10W J |
| R0051            | NRSA02J-472X | MG R             | 4.7kΩ 1/10W J |
| R0054            | NRSA02J-103X | MG R             | 10kΩ 1/10W J  |
| R0060            | NRSA02J-823X | MG R             | 82kΩ 1/10W J  |
| R0751            | NRSA02J-102X | MG R             | 1kΩ 1/10W J   |
| R0752-57         | NRSA02J-103X | MG R             | 10kΩ 1/10W J  |
| R0758            | NRSA02J-472X | MG R             | 4.7kΩ 1/10W J |
| R0759-60         | NRSA02J-103X | MG R             | 10kΩ 1/10W J  |
| R0761-66         | NRSA02J-822X | MG R             | 8.2kΩ 1/10W J |
| <b>CAPACITOR</b> |              |                  |               |
| C0001            | NEN51AM-336X | CHIP AL BP E CAP | 33μF 10V M    |
| C0002            | NDC21HJ-221X | C CAP.           | 220pF 50V J   |
| C0003            | NDC21HJ-220X | C CAP.           | 22pF 50V J    |
| C0004-05         | NCB21HK-104X | CHIP CAP.        | 0.1μF 50V K   |
| C0006            | NEH71CM-476X | E CAP.           | 47μF 16V M    |
| C0009            | NEH71CM-106X | E CAP.           | 10μF 16V M    |
| C0010-11         | NCB21HK-104X | CHIP CAP.        | 0.1μF 50V K   |
| C0751            | NEH71CM-476X | E CAP.           | 47μF 16V M    |
| C0752-57         | NCB21HK-104X | CHIP CAP.        | 0.1μF 50V K   |
| C0758            | NCB21HK-103X | C CAP.           | 0.01μF 50V K  |

| Symbol No.   | Part No.    | Part Name   | Description |
|--------------|-------------|-------------|-------------|
| <b>DIODE</b> |             |             |             |
| D0005        | MA3051/M/-X | ZENER DIODE |             |
| D0751        | MA111-X     | SI DIODE    |             |
| D0752-53     | MA3062/M/-X | ZENER DIODE |             |

| Symbol No.        | Part No.       | Part Name     | Description |
|-------------------|----------------|---------------|-------------|
| <b>TRANSISTOR</b> |                |               |             |
| Q0001-02          | 2SC2412K/QR/-X | SI TRANSISTOR |             |
| Q0003             | 2SA1162/YG/-X  | SI TRANSISTOR |             |
| Q0004-05          | 2SC2412K/QR/-X | SI TRANSISTOR |             |
| Q0751-52          | 2SC2712/YG/-X  | SI TRANSISTOR |             |

| Symbol No. | Part No. | Part Name | Description |
|------------|----------|-----------|-------------|
| <b>IC</b>  |          |           |             |
| IC0001     | JCC5035  | I C       |             |

| △ Symbol No.  | Part No.        | Part Name         | Description |
|---------------|-----------------|-------------------|-------------|
| <b>IC</b>     |                 |                   |             |
| IC0002        | MN1382/Q/-X     | I.C. (MONO-ANA)   |             |
| IC0751        | SAB-C161RI-W    | I.C. (DIGI-MOS)   |             |
| IC0752        | MX23C4000PC10M1 | I.C. (MEMORY-0TH) |             |
| IC0753        | BR24C16F-X      | I.C. (MEMORY-0TH) |             |
| <b>OTHERS</b> |                 |                   |             |
| X0001         | CE42564-001Y    | CER. RESONATOR    |             |
| X0751         | QAX0534-001     | C. RESONATOR      |             |

### 100Hz PW BOARD ASS'Y (SMD0Z005A-U2)

| △ Symbol No.    | Part No.     | Part Name | Description   |
|-----------------|--------------|-----------|---------------|
| <b>RESISTOR</b> |              |           |               |
| R0001-02        | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R0004           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R0005           | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R0101           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R0102           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R0103           | NRSA02J-331X | MG R      | 330Ω 1/10W J  |
| R0104           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R0105           | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R0106           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R0107           | NRSA02J-331X | MG R      | 330Ω 1/10W J  |
| R0108           | NRSA02J-181X | MG R      | 180Ω 1/10W J  |
| R0109-10        | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R0111           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R0112           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R0113           | NRSA02J-471X | MG R      | 470Ω 1/10W J  |
| R0114           | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R0121           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R0122           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R0123           | NRSA02J-331X | MG R      | 330Ω 1/10W J  |
| R0124           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R0125           | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R0126           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R0127           | NRSA02J-271X | MG R      | 270Ω 1/10W J  |
| R0128           | NRSA02J-181X | MG R      | 180Ω 1/10W J  |
| R0129           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R0130           | NRSA02J-330X | MG R      | 33Ω 1/10W J   |
| R0131           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R0132           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R0133           | NRSA02J-471X | MG R      | 470Ω 1/10W J  |
| R0134           | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R0141           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R0142           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R0143           | NRSA02J-331X | MG R      | 330Ω 1/10W J  |
| R0144           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R0145           | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R0146           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R0147           | NRSA02J-271X | MG R      | 270Ω 1/10W J  |
| R0148           | NRSA02J-181X | MG R      | 180Ω 1/10W J  |
| R0149           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R0150           | NRSA02J-150X | MG R      | 15Ω 1/10W J   |
| R0151           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R0152           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R0153           | NRSA02J-471X | MG R      | 470Ω 1/10W J  |
| R0154           | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R0155           | NRSA02J-100X | MG R      | 10Ω 1/10W J   |
| R0156           | NRSA02J-122X | MG R      | 1.2kΩ 1/10W J |

| △ Symbol No.    | Part No.      | Part Name | Description    |
|-----------------|---------------|-----------|----------------|
| <b>RESISTOR</b> |               |           |                |
| R0157           | NRSA02J-560X  | MG R      | 56Ω 1/10W J    |
| R0158           | NRSA02J-680X  | MG R      | 68Ω 1/10W J    |
| R0159           | NRSA02J-101X  | MG R      | 100Ω 1/10W J   |
| R0160           | NRSA02J-333X  | MG R      | 33kΩ 1/10W J   |
| R0161           | NRSA02J-223X  | MG R      | 22kΩ 1/10W J   |
| R0162           | NRSA02J-122X  | MG R      | 1.2kΩ 1/10W J  |
| R0163           | NRSA02J-181X  | MG R      | 180Ω 1/10W J   |
| R0164           | NRSA02J-680X  | MG R      | 68Ω 1/10W J    |
| R0165           | NRSA02J-0R0X  | MG R      | 0.0Ω 1/10W J   |
| R0171           | NRSA02J-101X  | MG R      | 100Ω 1/10W J   |
| R0172           | NRSA02J-102X  | MG R      | 1kΩ 1/10W J    |
| R0173           | NRSA02J-182X  | MG R      | 1.8kΩ 1/10W J  |
| R0174           | NRSA02J-560X  | MG R      | 56Ω 1/10W J    |
| R0175           | NRSA02J-105X  | MG R      | 1MΩ 1/10W J    |
| R0176           | NRSA02J-681X  | MG R      | 680Ω 1/10W J   |
| R0177           | NRSA02J-104X  | MG R      | 100kΩ 1/10W J  |
| R0178           | NRSA02J-101X  | MG R      | 100Ω 1/10W J   |
| R0179           | NRSA02J-471X  | MG R      | 470Ω 1/10W J   |
| R0180           | NRSA02J-102X  | MG R      | 1kΩ 1/10W J    |
| R0181-82        | NRSA02F-392X  | MG R      | 3.9kΩ 1/10W F  |
| R0183-84        | NRSA02J-122X  | MG R      | 1.2kΩ 1/10W J  |
| R0185           | NRSA02F-392X  | MG R      | 3.9kΩ 1/10W F  |
| R0186           | NRSA02F-332X  | MG R      | 3.3kΩ 1/10W F  |
| R0187           | NRSA02J-101X  | MG R      | 100Ω 1/10W J   |
| R0188           | NRSA02J-563X  | MG R      | 56kΩ 1/10W J   |
| R0189           | NRSA02J-470X  | MG R      | 47Ω 1/10W J    |
| R0190           | NRSA02J-102X  | MG R      | 1kΩ 1/10W J    |
| R0191           | NRSA02J-221X  | MG R      | 220Ω 1/10W J   |
| R0192           | NRSA02J-220X  | MG R      | 22Ω 1/10W J    |
| R0193           | NRSA02J-104X  | MG R      | 100kΩ 1/10W J  |
| R0201-16        | NRSA02J-101X  | MG R      | 100Ω 1/10W J   |
| R0221-36        | NRSA02J-101X  | MG R      | 100Ω 1/10W J   |
| R0303-18        | NRSA02J-101X  | MG R      | 100Ω 1/10W J   |
| R0401           | NRSA02J-103X  | MG R      | 10kΩ 1/10W J   |
| R0403           | NRSA02J-223X  | MG R      | 22kΩ 1/10W J   |
| R0404           | NRSA02J-222X  | MG R      | 2.2kΩ 1/10W J  |
| R0406           | NRSA02J-102X  | MG R      | 1kΩ 1/10W J    |
| R0408           | NRSA02J-561X  | MG R      | 560Ω 1/10W J   |
| R0409           | NRSA02J-102X  | MG R      | 1kΩ 1/10W J    |
| R0411           | NRSA02J-0R0X  | MG R      | 0.0Ω 1/10W J   |
| R0412           | NRSA02J-561X  | MG R      | 560Ω 1/10W J   |
| R0413           | NRSA02J-101X  | MG R      | 100Ω 1/10W J   |
| R0415           | NRSA02J-151X  | MG R      | 150Ω 1/10W J   |
| R0417           | NRSA02J-102X  | MG R      | 1kΩ 1/10W J    |
| R0418           | NRSA02J-220X  | MG R      | 22Ω 1/10W J    |
| R0419           | NRSA02J-101X  | MG R      | 100Ω 1/10W J   |
| R0420           | NRSA02J-471X  | MG R      | 470Ω 1/10W J   |
| R0425           | NRSA02J-0R0X  | MG R      | 0.0Ω 1/10W J   |
| R0426           | NRSA02J-122X  | MG R      | 1.2kΩ 1/10W J  |
| R0428           | NRSA02F-5231X | MG R      | 5.23kΩ 1/10W F |
| R0429           | NRSA02F-333X  | MG R      | 33kΩ 1/10W F   |
| R0431           | NRSA02J-0R0X  | MG R      | 0.0Ω 1/10W J   |
| R0432           | NRSA02J-561X  | MG R      | 560Ω 1/10W J   |
| R0433           | NRSA02J-101X  | MG R      | 100Ω 1/10W J   |
| R0435           | NRSA02J-151X  | MG R      | 150Ω 1/10W J   |
| R0437           | NRSA02J-102X  | MG R      | 1kΩ 1/10W J    |
| R0438           | NRSA02J-220X  | MG R      | 22Ω 1/10W J    |
| R0439           | NRSA02J-101X  | MG R      | 100Ω 1/10W J   |
| R0440           | NRSA02J-471X  | MG R      | 470Ω 1/10W J   |
| R0441           | NRSA02J-122X  | MG R      | 1.2kΩ 1/10W J  |
| R0442           | NRSA02F-562X  | MG R      | 5.6kΩ 1/10W F  |
| R0443           | NRSA02F-333X  | MG R      | 33kΩ 1/10W F   |
| R0451           | NRSA02J-0R0X  | MG R      | 0.0Ω 1/10W J   |
| R0452           | NRSA02J-561X  | MG R      | 560Ω 1/10W J   |
| R0453           | NRSA02J-101X  | MG R      | 100Ω 1/10W J   |
| R0455           | NRSA02J-151X  | MG R      | 150Ω 1/10W J   |
| R0457           | NRSA02J-102X  | MG R      | 1kΩ 1/10W J    |
| R0458           | NRSA02J-220X  | MG R      | 22Ω 1/10W J    |
| R0459           | NRSA02J-101X  | MG R      | 100Ω 1/10W J   |
| R0460           | NRSA02J-471X  | MG R      | 470Ω 1/10W J   |
| R0461           | NRSA02J-122X  | MG R      | 1.2kΩ 1/10W J  |
| R0462           | NRSA02F-5231X | MG R      | 5.23kΩ 1/10W F |

| △ Symbol No.     | Part No.     | Part Name | Description   |
|------------------|--------------|-----------|---------------|
| <b>RESISTOR</b>  |              |           |               |
| R0463            | NRSA02F-333X | MG R      | 33kΩ 1/10W F  |
| R0471            | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R0472            | NRSA02J-391X | MG R      | 390Ω 1/10W J  |
| R0473            | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R0475            | NRSA02J-330X | MG R      | 33Ω 1/10W J   |
| R0476            | NRSA02J-122X | MG R      | 1.2kΩ 1/10W J |
| R0477            | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R0478            | NRSA02J-220X | MG R      | 22Ω 1/10W J   |
| R0479            | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R0480            | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R0486            | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R0487            | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R0488            | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R0489            | NRSA02J-562X | MG R      | 5.6kΩ 1/10W J |
| R0491-92         | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R0501            | NRSA02J-823X | MG R      | 82kΩ 1/10W J  |
| R0504            | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R0505            | NRSA02J-272X | MG R      | 2.7kΩ 1/10W J |
| R0506            | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R0507            | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R0512            | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R0514-15         | NRSA02J-682X | MG R      | 6.8kΩ 1/10W J |
| R0516            | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R0602-03         | NRSA02J-680X | MG R      | 68Ω 1/10W J   |
| R0604            | QRN143J-221X | C R       | 220Ω 1/4W J   |
| R0606            | NRSA02J-680X | MG R      | 68Ω 1/10W J   |
| R0607-08         | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R0609            | NRSA02J-100X | MG R      | 10Ω 1/10W J   |
| R0610            | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R0611            | NRSA02J-100X | MG R      | 10Ω 1/10W J   |
| R0612-13         | NRSA02J-560X | MG R      | 56Ω 1/10W J   |
| R0614            | NRSA02J-100X | MG R      | 10Ω 1/10W J   |
| R0615            | NRSA02J-822X | MG R      | 8.2kΩ 1/10W J |
| R0616            | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R0704            | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R0705-06         | NRVA02D-123X | MF R      | 12kΩ 1/10W D  |
| R0708            | NRVA02D-123X | MF R      | 12kΩ 1/10W D  |
| R0709            | NRVA02D-103X | MF R      | 10kΩ 1/10W D  |
| R0714            | NRVA02D-123X | MF R      | 12kΩ 1/10W D  |
| R0715            | NRSA02J-333X | MG R      | 33kΩ 1/10W J  |
| R0716            | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R0717            | NRSA02J-123X | MG R      | 12kΩ 1/10W J  |
| R0718            | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R0719            | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R0720            | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R0721            | NRSA02J-123X | MG R      | 12kΩ 1/10W J  |
| R0723            | NRSA02J-682X | MG R      | 6.8kΩ 1/10W J |
| R0724            | NRSA02J-272X | MG R      | 2.7kΩ 1/10W J |
| R0726            | NRSA02J-153X | MG R      | 15kΩ 1/10W J  |
| R0727            | NRSA02J-563X | MG R      | 56kΩ 1/10W J  |
| R0731            | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R0733            | NRSA02J-154X | MG R      | 150kΩ 1/10W J |
| R0734            | NRSA02J-123X | MG R      | 12kΩ 1/10W J  |
| R0736            | NRSA02J-123X | MG R      | 12kΩ 1/10W J  |
| R0737            | NRSA02J-224X | MG R      | 220kΩ 1/10W J |
| R0738            | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R0739            | NRSA02J-332X | MG R      | 3.3kΩ 1/10W J |
| R0740            | NRSA02J-682X | MG R      | 6.8kΩ 1/10W J |
| R0741            | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R0742            | NRSA02J-224X | MG R      | 220kΩ 1/10W J |
| R0743            | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R0744            | NRSA02J-224X | MG R      | 220kΩ 1/10W J |
| R0745            | NRSA02J-563X | MG R      | 56kΩ 1/10W J  |
| R0746            | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| <b>CAPACITOR</b> |              |           |               |
| C0001            | NEH71CM-476X | E CAP.    | 47μF 16V M    |
| C0002            | NCF21EZ-104X | C CAP.    | 0.1μF 25V Z   |
| C0003            | NEH71CM-476X | E CAP.    | 47μF 16V M    |
| C0004            | NCF21EZ-104X | C CAP.    | 0.1μF 25V Z   |

| △ Symbol No.     | Part No.     | Part Name        | Description   |
|------------------|--------------|------------------|---------------|
| <b>CAPACITOR</b> |              |                  |               |
| C0005            | NEH71CM-476X | E CAP.           | 47μF 16V M    |
| C0006            | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0007            | NEH71CM-476X | E CAP.           | 47μF 16V M    |
| C0008            | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0009            | NDC21HJ-121X | C CAP.           | 120pF 50V J   |
| C0011            | NDC21HJ-270X | C CAP.           | 27pF 50V J    |
| C0102            | NDC21HJ-121X | C CAP.           | 120pF 50V J   |
| C0103            | NDC21HJ-680X | C CAP.           | 68pF 50V J    |
| C0104            | NEN51EM-106X | CHIP AL BP E CAP | 10μF 25V M    |
| C0105            | NCF21HZ-224X | C CAP.           | 0.22μF 50V Z  |
| C0106            | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0107            | NDC21HJ-390X | C CAP.           | 39pF 50V J    |
| C0108            | NEH71CM-476X | E CAP.           | 47μF 16V M    |
| C0109            | NEN51HM-105X | CHIP AL BP E CAP | 1μF 50V M     |
| C0110            | NCB21HK-103X | C CAP.           | 0.01μF 50V K  |
| C0111            | NDC21HJ-181X | C CAP.           | 180pF 50V J   |
| C0112-14         | NEH71CM-106X | E CAP.           | 10μF 16V M    |
| C0122            | NDC21HJ-121X | C CAP.           | 120pF 50V J   |
| C0123            | NDC21HJ-680X | C CAP.           | 68pF 50V J    |
| C0124            | NEN51HM-105X | CHIP AL BP E CAP | 1μF 50V M     |
| C0125            | NCF21HZ-224X | C CAP.           | 0.22μF 50V Z  |
| C0126            | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0142            | NDC21HJ-121X | C CAP.           | 120pF 50V J   |
| C0143            | NDC21HJ-680X | C CAP.           | 68pF 50V J    |
| C0144            | NEN51HM-105X | CHIP AL BP E CAP | 1μF 50V M     |
| C0145            | NCF21HZ-224X | C CAP.           | 0.22μF 50V Z  |
| C0146            | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0151            | NCB21HK-103X | C CAP.           | 0.01μF 50V K  |
| C0152            | QETNOJM-228Z | E CAP.           | 2200μF 6.3V M |
| C0153            | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0154-55         | NEH71HM-105X | E CAP.           | 1μF 50V M     |
| C0156-57         | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0161-62         | NEH71CM-106X | E CAP.           | 10μF 16V M    |
| C0163            | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0164            | NEH71CM-106X | E CAP.           | 10μF 16V M    |
| C0165-80         | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0181-82         | NDC21HJ-8R0X | C CAP.           | 8.0pF 50V J   |
| C0191            | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0192            | NEH71CM-106X | E CAP.           | 10μF 16V M    |
| C0193            | NCB21HK-103X | C CAP.           | 0.01μF 50V K  |
| C0194            | NRSA02J-223X | MG R             | 22kΩ 1/10W J  |
| C0201-02         | QETNOJM-477Z | E CAP.           | 470μF 6.3V M  |
| C0203-07         | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0208-09         | NDC21HJ-150X | C CAP.           | 15pF 50V J    |
| C0301-19         | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0401            | NEH71CM-106X | E CAP.           | 10μF 16V M    |
| C0402            | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0403            | NEH71CM-106X | E CAP.           | 10μF 16V M    |
| C0404            | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0405-06         | NDC21HJ-120X | C CAP.           | 12pF 50V J    |
| C0408-13         | NCB21HK-103X | C CAP.           | 0.01μF 50V K  |
| C0414            | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0415            | NEH71HM-105X | E CAP.           | 1μF 50V M     |
| C0416            | NEH71CM-106X | E CAP.           | 10μF 16V M    |
| C0417            | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0420            | NEH71HM-105X | E CAP.           | 1μF 50V M     |
| C0422            | NRSA02J-0R0X | MG R             | 0.0Ω 1/10W J  |
| C0424            | NEH71HM-105X | E CAP.           | 1μF 50V M     |
| C0425            | NEH71CM-476X | E CAP.           | 47μF 16V M    |
| C0426            | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0432            | NRSA02J-0R0X | MG R             | 0.0Ω 1/10W J  |
| C0434            | NEH71HM-105X | E CAP.           | 1μF 50V M     |
| C0435            | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0452            | NRSA02J-0R0X | MG R             | 0.0Ω 1/10W J  |
| C0454            | NEH71HM-105X | E CAP.           | 1μF 50V M     |
| C0455            | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0472            | NRSA02J-0R0X | MG R             | 0.0Ω 1/10W J  |
| C0474            | NEH71HM-105X | E CAP.           | 1μF 50V M     |
| C0475-76         | NCF21EZ-104X | C CAP.           | 0.1μF 25V Z   |
| C0477            | NDC21HJ-561X | C CAP.           | 560pF 50V J   |
| C0501            | NCB21HK-333X | C CAP.           | 0.033μF 50V K |
| C0504            | NCB21HK-562X | C CAP.           | 5600pF 50V K  |

| △ Symbol No.      | Part No.      | Part Name     | Description   |
|-------------------|---------------|---------------|---------------|
| <b>CAPACITOR</b>  |               |               |               |
| C0505-06          | NCB21HK-393X  | C CAP.        | 0.039μF 50V K |
| C0601             | NCF21EZ-104X  | C CAP.        | 0.1μF 25V Z   |
| C0602             | NEH71CM-476X  | E CAP.        | 47μF 16V M    |
| C0603             | NCF21EZ-104X  | C CAP.        | 0.1μF 25V Z   |
| C0605             | NCF21EZ-104X  | C CAP.        | 0.1μF 25V Z   |
| C0606             | NDC21HJ-681X  | C CAP.        | 680pF 50V J   |
| C0701             | NCB21HK-102X  | C CAP.        | 1000pF 50V K  |
| C0706             | NCB21EK-154X  | C CAP.        | 0.15μF 25V K  |
| C0707             | NCB21EK-104X  | C CAP.        | 0.1μF 25V K   |
| C0708             | NCB21HK-103X  | C CAP.        | 0.01μF 50V K  |
| C0709             | NCF21EZ-104X  | C CAP.        | 0.1μF 25V Z   |
| C0710             | NEH71CM-106X  | E CAP.        | 10μF 16V M    |
| C0711             | NCF21EZ-104X  | C CAP.        | 0.1μF 25V Z   |
| C0712             | NEH71CM-106X  | E CAP.        | 10μF 16V M    |
| C0713             | NCB21HK-223X  | C CAP.        | 0.022μF 50V K |
| <b>COIL</b>       |               |               |               |
| L0001-05          | NQL02BJ-4R7X  | COIL          | 4.7μH         |
| L0101             | NQL011K-3R3X  | COIL          | 3.3μH         |
| L0121             | NQL011K-3R3X  | COIL          | 3.3μH         |
| L0141             | NQL011K-3R3X  | COIL          | 3.3μH         |
| L0161             | NQL02BJ-100X  | COIL          | 10μH          |
| L0162             | NQL02BJ-3R3X  | COIL          | 3.3μH         |
| L0163-64          | NQL02BJ-100X  | COIL          | 10μH          |
| L0201-02          | NQL02BJ-100X  | COIL          | 10μH          |
| L0301-02          | NQL02BJ-4R7X  | COIL          | 4.7μH         |
| <b>DIODE</b>      |               |               |               |
| D0001             | MA152WK-X     | SI DIODE      |               |
| D0101-02          | MA3068/M/-X   | ZENER DIODE   |               |
| D0103             | MA3043-X      | ZENER DIODE   |               |
| D0104-05          | MA111-X       | SI DIODE      |               |
| D0106             | MA3068/M/-X   | ZENER DIODE   |               |
| D0107             | MA111-X       | SI DIODE      |               |
| D0401             | MA111-X       | SI DIODE      |               |
| D0403-10          | MA3068/M/-X   | ZENER DIODE   |               |
| D0411-13          | MA111-X       | SI DIODE      |               |
| D0414             | MA3068/M/-X   | ZENER DIODE   |               |
| D0701             | MA111-X       | SI DIODE      |               |
| <b>TRANSISTOR</b> |               |               |               |
| Q0101             | 2SA1162/YG/-X | SI TRANSISTOR |               |
| Q0102             | 2SC2712/YG/-X | SI TRANSISTOR |               |
| Q0103             | 2SA1162/YG/-X | SI TRANSISTOR |               |
| Q0104             | 2SC2712/YG/-X | SI TRANSISTOR |               |
| Q0105             | 2SA1162/YG/-X | SI TRANSISTOR |               |
| Q0106-07          | 2SC2712/YG/-X | SI TRANSISTOR |               |
| Q0108             | 2SA1162/YG/-X | SI TRANSISTOR |               |
| Q0109-10          | 2SC2712/YG/-X | SI TRANSISTOR |               |
| Q0111             | 2SA1162/YG/-X | SI TRANSISTOR |               |
| Q0121             | 2SA1162/YG/-X | SI TRANSISTOR |               |
| Q0122             | 2SC2712/YG/-X | SI TRANSISTOR |               |
| Q0123             | 2SA1162/YG/-X | SI TRANSISTOR |               |
| Q0124             | 2SC2712/YG/-X | SI TRANSISTOR |               |
| Q0141             | 2SA1162/YG/-X | SI TRANSISTOR |               |
| Q0142             | 2SC2712/YG/-X | SI TRANSISTOR |               |
| Q0143             | 2SA1162/YG/-X | SI TRANSISTOR |               |
| Q0144             | 2SC2712/YG/-X | SI TRANSISTOR |               |
| Q0151-52          | 2SC2712/YG/-X | SI TRANSISTOR |               |
| Q0153             | 2SA1162/YG/-X | SI TRANSISTOR |               |
| Q0154             | 2SC2712/YG/-X | SI TRANSISTOR |               |
| Q0155             | 2SA1162/YG/-X | SI TRANSISTOR |               |
| Q0402             | 2SC2712/YG/-X | SI TRANSISTOR |               |
| Q0403-05          | 2SA1162/YG/-X | SI TRANSISTOR |               |
| Q0411             | 2SA1162/YG/-X | SI TRANSISTOR |               |
| Q0412-15          | 2SC2712/YG/-X | SI TRANSISTOR |               |
| Q0431             | 2SA1162/YG/-X | SI TRANSISTOR |               |
| Q0432-35          | 2SC2712/YG/-X | SI TRANSISTOR |               |
| Q0451             | 2SA1162/YG/-X | SI TRANSISTOR |               |
| Q0452-55          | 2SC2712/YG/-X | SI TRANSISTOR |               |

| △ Symbol No.      | Part No.      | Part Name       | Description  |
|-------------------|---------------|-----------------|--------------|
| <b>TRANSISTOR</b> |               |                 |              |
| Q0471             | 2SA1162/YG/-X | SI TRANSISTOR   |              |
| Q0472-74          | 2SC2712/YG/-X | SI TRANSISTOR   |              |
| Q0501             | 2SC2712/YG/-X | SI TRANSISTOR   |              |
| Q0601             | 2SC2712/YG/-X | SI TRANSISTOR   |              |
| Q0702             | 2SC2712/YG/-X | SI TRANSISTOR   |              |
| <b>IC</b>         |               |                 |              |
| IC0101            | SDA9206       | I C             |              |
| IC0102            | TC4W66F-X     | I C. (DIGI-MOS) |              |
| IC0201            | SDA9400       | I C             |              |
| IC0301            | JCC5043       | I C             |              |
| IC0401            | DDP3310B/E4-W | I C             |              |
| IC0601            | SN74LV04ANS-X | I C             |              |
| IC0602            | TC74AC00F-X   | I C. (DIGI-MOS) |              |
| IC0603            | MN1382/Q/-X   | I C. (MONO-ANA) |              |
| IC0701-02         | NJM4556AM-XE  | I C             |              |
| <b>OTHERS</b>     |               |                 |              |
| LC0001-04         | CE42482-103Y  | EMI FILTER      |              |
| LC0101-03         | CE42482-470Y  | EMI FILTER      |              |
| LC0104            | CE42126-101Y  | EMI FILTER      |              |
| LC0201            | CE42482-103Y  | EMI FILTER      |              |
| LC0401-11         | CE42126-220Y  | EMI FILTER      |              |
| LC0601            | CE42126-101Y  | EMI FILTER      |              |
| LC0602            | CE42482-470Y  | EMI FILTER      |              |
| LC0603            | CE42126-101Y  | EMI FILTER      |              |
| X0101             | QAX0549-001Z  | X TAL           |              |
| X0201             | QAX0359-001Z  | CRYSTAL         |              |
| X0401             | QAX0548-001Z  | X TAL           |              |
| Y0001-14          | NRSA02J-OR0X  | MG R            | 0.0Ω 1/10W J |
| Y0017-28          | NRSA02J-OR0X  | MG R            | 0.0Ω 1/10W J |

# AV-32WL1EK

## PRINTED WIRING BOARD PARTS LIST

### MAIN PW BOARD ASS'Y (SMD-1903A-U2)

△ Symbol No. Part No. Part Name Description

#### RESISTOR

|          |              |      |               |
|----------|--------------|------|---------------|
| R1002    | NRSA02J-103X | MG R | 10kΩ 1/10W J  |
| R1003-06 | NRSA02J-102X | MG R | 1kΩ 1/10W J   |
| R1101-03 | NRSA02J-102X | MG R | 1kΩ 1/10W J   |
| R1104    | NRSA02J-681X | MG R | 680Ω 1/10W J  |
| R1105    | NRSA02J-392X | MG R | 3.9kΩ 1/10W J |
| R1107    | NRSA02J-391X | MG R | 390Ω 1/10W J  |
| R1108    | NRSA02J-102X | MG R | 1kΩ 1/10W J   |
| R1109    | NRSA02J-103X | MG R | 10kΩ 1/10W J  |
| R1110    | NRSA02J-472X | MG R | 4.7kΩ 1/10W J |
| R1111    | NRSA02J-821X | MG R | 820Ω 1/10W J  |
| R1112    | NRSA02J-101X | MG R | 100Ω 1/10W J  |
| R1113    | NRSA02J-102X | MG R | 1kΩ 1/10W J   |
| R1121-22 | NRSA02J-0R0X | MG R | 0.0Ω 1/10W J  |
| R1123    | NRSA02J-152X | MG R | 1.5kΩ 1/10W J |
| R1124    | NRSA02J-821X | MG R | 820Ω 1/10W J  |
| R1125-27 | NRSA02J-103X | MG R | 10kΩ 1/10W J  |
| R1128    | NRSA02J-153X | MG R | 15kΩ 1/10W J  |
| R1131-33 | NRSA02J-102X | MG R | 1kΩ 1/10W J   |
| R1134    | NRSA02J-681X | MG R | 680Ω 1/10W J  |
| R1135    | NRSA02J-561X | MG R | 560Ω 1/10W J  |
| R1136    | NRSA02J-681X | MG R | 680Ω 1/10W J  |
| R1137    | NRSA02J-102X | MG R | 1kΩ 1/10W J   |
| R1138    | NRSA02J-391X | MG R | 390Ω 1/10W J  |
| R1140    | NRSA02J-103X | MG R | 10kΩ 1/10W J  |
| R1141    | NRSA02J-472X | MG R | 4.7kΩ 1/10W J |
| R1142    | NRSA02J-821X | MG R | 820Ω 1/10W J  |
| R1151    | NRSA02J-222X | MG R | 2.2kΩ 1/10W J |
| R1152-53 | NRSA02J-102X | MG R | 1kΩ 1/10W J   |
| R1154    | NRSA02J-681X | MG R | 680Ω 1/10W J  |
| R1155    | NRSA02J-561X | MG R | 560Ω 1/10W J  |
| R1156    | NRSA02J-681X | MG R | 680Ω 1/10W J  |
| R1157    | NRSA02J-102X | MG R | 1kΩ 1/10W J   |
| R1158    | NRSA02J-391X | MG R | 390Ω 1/10W J  |
| R1160    | NRSA02J-103X | MG R | 10kΩ 1/10W J  |
| R1161    | NRSA02J-472X | MG R | 4.7kΩ 1/10W J |
| R1162    | NRSA02J-821X | MG R | 820Ω 1/10W J  |
| R1171    | NRSA02J-103X | MG R | 10kΩ 1/10W J  |
| R1172    | NRSA02J-562X | MG R | 5.6kΩ 1/10W J |
| R1173    | NRSA02J-221X | MG R | 220Ω 1/10W J  |
| R1174    | NRSA02J-272X | MG R | 2.7kΩ 1/10W J |
| R1175    | NRSA02J-102X | MG R | 1kΩ 1/10W J   |
| R1176    | NRSA02J-392X | MG R | 3.9kΩ 1/10W J |
| R1177    | NRSA02J-472X | MG R | 4.7kΩ 1/10W J |
| R1178    | NRSA02J-0R0X | MG R | 0.0Ω 1/10W J  |
| R1179    | NRSA02J-272X | MG R | 2.7kΩ 1/10W J |
| R1201-02 | NRSA02J-103X | MG R | 10kΩ 1/10W J  |
| R1203    | NRSA02J-750X | MG R | 75Ω 1/10W J   |
| R1204    | QRK126J-151X | C R  | 150Ω 1/2W J   |
| R1205    | NRSA02J-101X | MG R | 100Ω 1/10W J  |
| R1206    | QRG01GJ-101  | OM R | 100Ω 1W J     |
| R1207    | NRSA02J-223X | MG R | 22kΩ 1/10W J  |
| R1208    | NRSA02J-473X | MG R | 47kΩ 1/10W J  |
| R1209    | NRSA02J-683X | MG R | 68kΩ 1/10W J  |
| R1210    | NRSA02J-153X | MG R | 15kΩ 1/10W J  |
| R1211    | NRSA02J-103X | MG R | 10kΩ 1/10W J  |
| R1212    | NRSA02J-473X | MG R | 47kΩ 1/10W J  |
| R1213    | NRSA02J-273X | MG R | 27kΩ 1/10W J  |
| R1214    | NRSA02J-103X | MG R | 10kΩ 1/10W J  |
| R1215    | NRSA02J-222X | MG R | 2.2kΩ 1/10W J |
| R1216    | NRSA02J-333X | MG R | 33kΩ 1/10W J  |
| R1217    | NRSA02J-222X | MG R | 2.2kΩ 1/10W J |
| R1218    | NRSA02J-333X | MG R | 33kΩ 1/10W J  |
| R1219    | NRSA02J-823X | MG R | 82kΩ 1/10W J  |
| R1220    | NRSA02J-0R0X | MG R | 0.0Ω 1/10W J  |

△ Symbol No. Part No. Part Name Description

#### RESISTOR

|          |              |      |               |
|----------|--------------|------|---------------|
| R1221    | NRSA02J-391X | MG R | 390Ω 1/10W J  |
| R1222    | NRSA02J-823X | MG R | 82kΩ 1/10W J  |
| R1223    | NRSA02J-0R0X | MG R | 0.0Ω 1/10W J  |
| R1224    | NRSA02J-391X | MG R | 390Ω 1/10W J  |
| R1225-26 | NRSA02J-223X | MG R | 22kΩ 1/10W J  |
| R1227    | NRSA02J-104X | MG R | 100kΩ 1/10W J |
| R1228    | NRSA02J-560X | MG R | 56Ω 1/10W J   |
| R1229    | QRK126J-181X | C R  | 180Ω 1/2W J   |
| R1231    | QRG01GJ-101  | OM R | 100Ω 1W J     |
| R1232    | NRSA02J-101X | MG R | 100Ω 1/10W J  |
| R1233    | NRSA02J-222X | MG R | 2.2kΩ 1/10W J |
| R1242    | NRSA02J-223X | MG R | 22kΩ 1/10W J  |
| R1243    | NRSA02J-473X | MG R | 47kΩ 1/10W J  |
| R1244    | NRSA02J-683X | MG R | 68kΩ 1/10W J  |
| R1245    | NRSA02J-153X | MG R | 15kΩ 1/10W J  |
| R1246    | NRSA02J-103X | MG R | 10kΩ 1/10W J  |
| R1247    | NRSA02J-473X | MG R | 47kΩ 1/10W J  |
| R1248    | NRSA02J-273X | MG R | 27kΩ 1/10W J  |
| R1249    | NRSA02J-103X | MG R | 10kΩ 1/10W J  |
| R1250    | NRSA02J-222X | MG R | 2.2kΩ 1/10W J |
| R1251    | NRSA02J-333X | MG R | 33kΩ 1/10W J  |
| R1252    | NRSA02J-222X | MG R | 2.2kΩ 1/10W J |
| R1253    | NRSA02J-333X | MG R | 33kΩ 1/10W J  |
| R1254    | NRSA02J-823X | MG R | 82kΩ 1/10W J  |
| R1255    | NRSA02J-0R0X | MG R | 0.0Ω 1/10W J  |
| R1256    | NRSA02J-391X | MG R | 390Ω 1/10W J  |
| R1257    | NRSA02J-823X | MG R | 82kΩ 1/10W J  |
| R1258    | NRSA02J-0R0X | MG R | 0.0Ω 1/10W J  |
| R1259    | NRSA02J-391X | MG R | 390Ω 1/10W J  |
| R1260-61 | NRSA02J-223X | MG R | 22kΩ 1/10W J  |
| R1262    | NRSA02J-104X | MG R | 100kΩ 1/10W J |
| R1263    | NRSA02J-222X | MG R | 2.2kΩ 1/10W J |
| R1264    | NRSA02J-333X | MG R | 33kΩ 1/10W J  |
| R1265    | NRSA02J-222X | MG R | 2.2kΩ 1/10W J |
| R1266    | NRSA02J-333X | MG R | 33kΩ 1/10W J  |
| R1267-69 | NRSA02J-750X | MG R | 75Ω 1/10W J   |
| R1277-79 | NRSA02J-750X | MG R | 75Ω 1/10W J   |
| R1280    | NRSA02J-223X | MG R | 22kΩ 1/10W J  |
| R1281    | NRSA02J-473X | MG R | 47kΩ 1/10W J  |
| R1282    | NRSA02J-683X | MG R | 68kΩ 1/10W J  |
| R1283    | NRSA02J-153X | MG R | 15kΩ 1/10W J  |
| R1284    | NRSA02J-103X | MG R | 10kΩ 1/10W J  |
| R1285    | NRSA02J-473X | MG R | 47kΩ 1/10W J  |
| R1286    | NRSA02J-273X | MG R | 27kΩ 1/10W J  |
| R1287    | NRSA02J-103X | MG R | 10kΩ 1/10W J  |
| R1288    | NRSA02J-222X | MG R | 2.2kΩ 1/10W J |
| R1289    | NRSA02J-333X | MG R | 33kΩ 1/10W J  |
| R1290    | NRSA02J-222X | MG R | 2.2kΩ 1/10W J |
| R1291    | NRSA02J-333X | MG R | 33kΩ 1/10W J  |
| R1292    | NRSA02J-271X | MG R | 270Ω 1/10W J  |
| R1301    | NRSA02J-101X | MG R | 100Ω 1/10W J  |
| R1302    | NRSA02J-471X | MG R | 470Ω 1/10W J  |
| R1303    | NRSA02J-101X | MG R | 100Ω 1/10W J  |
| R1304    | NRSA02J-471X | MG R | 470Ω 1/10W J  |
| R1305    | NRSA02J-221X | MG R | 220Ω 1/10W J  |
| R1306    | NRSA02J-271X | MG R | 270Ω 1/10W J  |
| R1307    | NRSA02J-101X | MG R | 100Ω 1/10W J  |
| R1308    | NRSA02J-471X | MG R | 470Ω 1/10W J  |
| R1309    | NRSA02J-101X | MG R | 100Ω 1/10W J  |
| R1310    | NRSA02J-471X | MG R | 470Ω 1/10W J  |
| R1311    | NRSA02J-221X | MG R | 220Ω 1/10W J  |
| R1312    | NRSA02J-271X | MG R | 270Ω 1/10W J  |
| R1313    | NRSA02J-101X | MG R | 100Ω 1/10W J  |
| R1314-15 | NRSA02J-471X | MG R | 470Ω 1/10W J  |

| △ Symbol No.    | Part No.     | Part Name | Description   |
|-----------------|--------------|-----------|---------------|
| <b>RESISTOR</b> |              |           |               |
| R1317-18        | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1320           | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R1323-24        | NRSA02J-562X | MG R      | 5.6kΩ 1/10W J |
| R1326-29        | NRSA02J-152X | MG R      | 1.5kΩ 1/10W J |
| R1330           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1331           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1332-33        | NRSA02J-471X | MG R      | 470Ω 1/10W J  |
| R1334-35        | NRSA02J-152X | MG R      | 1.5kΩ 1/10W J |
| R1336           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1337           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1338-40        | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1341           | NRSA02J-183X | MG R      | 18kΩ 1/10W J  |
| R1342           | NRSA02J-823X | MG R      | 82kΩ 1/10W J  |
| R1343-44        | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1345-46        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1347           | NRSA02J-562X | MG R      | 5.6kΩ 1/10W J |
| R1348           | NRSA02J-471X | MG R      | 470Ω 1/10W J  |
| R1349           | NRSA02J-152X | MG R      | 1.5kΩ 1/10W J |
| R1350           | NRSA02J-271X | MG R      | 270Ω 1/10W J  |
| R1381           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1382           | NRSA02J-182X | MG R      | 1.8kΩ 1/10W J |
| R1383           | NRSA02J-123X | MG R      | 12kΩ 1/10W J  |
| R1384           | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R1385           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R1386           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1387           | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R1388           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R1389           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1390           | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R1391           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R1392           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1395-97        | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R1398           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1401-02        | NRSA02J-682X | MG R      | 6.8kΩ 1/10W J |
| R1403           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1404           | QRX01GJ-1R0  | MF R      | 1.0Ω 1W J     |
| R1405           | QRL029J-221  | OM R      | 220Ω 2W J     |
| R1406           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1407-08        | QRX01GJ-1R5  | MF R      | 1.5Ω 1W J     |
| R1409-10        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1461           | NRSA02J-272X | MG R      | 2.7kΩ 1/10W J |
| R1462           | NRSA02J-563X | MG R      | 56kΩ 1/10W J  |
| R1463           | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R1464           | NRSA02J-123X | MG R      | 12kΩ 1/10W J  |
| R1501           | NRSA02J-332X | MG R      | 3.3kΩ 1/10W J |
| R1551           | NRSA02J-100X | MG R      | 10Ω 1/10W J   |
| R1552           | NRSA02J-124X | MG R      | 120kΩ 1/10W J |
| R1553           | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R1554           | NRSA02J-562X | MG R      | 5.6kΩ 1/10W J |
| R1555           | NRSA02J-333X | MG R      | 33kΩ 1/10W J  |
| R1556           | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1557           | NRSA02J-562X | MG R      | 5.6kΩ 1/10W J |
| R1558           | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R1559           | NRSA02J-154X | MG R      | 150kΩ 1/10W J |
| R1560           | NRSA02J-100X | MG R      | 10Ω 1/10W J   |
| R1561           | QRN143J-0R0X | C R       | 0.0Ω 1/4W J   |
| R1603           | NRSA02J-272X | MG R      | 2.7kΩ 1/10W J |
| R1604           | NRSA02J-563X | MG R      | 56kΩ 1/10W J  |
| R1605           | NRSA02J-122X | MG R      | 1.2kΩ 1/10W J |
| R1606-07        | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1608           | NRSA02J-272X | MG R      | 2.7kΩ 1/10W J |
| R1609           | NRSA02J-563X | MG R      | 56kΩ 1/10W J  |
| R1611           | NRSA02J-331X | MG R      | 330Ω 1/10W J  |
| R1612           | NRSA02J-561X | MG R      | 560Ω 1/10W J  |
| R1613-14        | NRSA02J-123X | MG R      | 12kΩ 1/10W J  |
| R1615           | NRSA02J-681X | MG R      | 680Ω 1/10W J  |
| R1616           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1617-18        | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R1651           | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1652           | NRSA02J-822X | MG R      | 8.2kΩ 1/10W J |
| R1653           | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1654           | NRSA02J-822X | MG R      | 8.2kΩ 1/10W J |

| △ Symbol No.    | Part No.     | Part Name | Description   |
|-----------------|--------------|-----------|---------------|
| <b>RESISTOR</b> |              |           |               |
| R1655           | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R1656-57        | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1659-60        | QRN143J-2R2X | C R       | 2.2Ω 1/4W J   |
| R1661           | NRSA02J-561X | MG R      | 560Ω 1/10W J  |
| R1665           | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R1666           | NRSA02J-682X | MG R      | 6.8kΩ 1/10W J |
| R1668           | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R1669           | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R1670           | NRSA02J-0R0X | MG R      | 0.0Ω 1/10W J  |
| R1671           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R1682           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1683           | NRSA02J-562X | MG R      | 5.6kΩ 1/10W J |
| R1684           | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R1685-86        | NRSA02J-681X | MG R      | 680Ω 1/10W J  |
| R1687-88        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1703-05        | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1708           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1709           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1710           | NRSA02J-821X | MG R      | 820Ω 1/10W J  |
| R1711           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1713-14        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1716           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1718           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1719           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1720           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1721-23        | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1724-26        | NRSA02J-821X | MG R      | 820Ω 1/10W J  |
| R1727           | NRSA02J-153X | MG R      | 15kΩ 1/10W J  |
| R1728           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1729           | NRSA02J-683X | MG R      | 68kΩ 1/10W J  |
| R1730           | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1731           | NRSA02J-562X | MG R      | 5.6kΩ 1/10W J |
| R1732           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1733           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1734           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1735-36        | NRSA02J-682X | MG R      | 6.8kΩ 1/10W J |
| R1737           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1738           | NRSA02J-183X | MG R      | 18kΩ 1/10W J  |
| R1739           | NRSA02J-331X | MG R      | 330Ω 1/10W J  |
| R1740           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1742           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1743           | NRSA02J-222X | MG R      | 2.2kΩ 1/10W J |
| R1744-46        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1747           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1751-52        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1753           | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1754           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1755           | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1756-57        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1758-59        | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R1760           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1761-65        | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R1766           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1767           | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R1768           | NRSA02J-823X | MG R      | 82kΩ 1/10W J  |
| R1770           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1771           | NRSA02J-392X | MG R      | 3.9kΩ 1/10W J |
| R1772-74        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1775-76        | NRSA02J-563X | MG R      | 56kΩ 1/10W J  |
| R1777           | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1778           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1779           | NRSA02J-333X | MG R      | 33kΩ 1/10W J  |
| R1780           | NRSA02J-104X | MG R      | 100kΩ 1/10W J |
| R1791           | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1792           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1793           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1794           | NRSA02J-152X | MG R      | 1.5kΩ 1/10W J |
| R1797           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1820           | NRSA02J-332X | MG R      | 3.3kΩ 1/10W J |
| R1880-82        | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |
| R1883           | NRSA02J-473X | MG R      | 47kΩ 1/10W J  |
| R1884-86        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |

| △ Symbol No.    | Part No.     | Part Name | Description   |
|-----------------|--------------|-----------|---------------|
| <b>RESISTOR</b> |              |           |               |
| R1888-89        | NRSA02J-103X | MG R      | 10kΩ 1/10W J  |
| R1890           | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R1891           | NRSA02J-273X | MG R      | 27kΩ 1/10W J  |
| R1892-96        | NRSA02J-221X | MG R      | 220Ω 1/10W J  |
| R1897           | QRG029J-220  | OM R      | 22 Ω 2W J     |
| R1901           | NRSA02J-101X | MG R      | 100Ω 1/10W J  |
| R1902           | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1903           | NRSA02J-472X | MG R      | 4.7kΩ 1/10W J |
| R1904           | NRSA02J-223X | MG R      | 22kΩ 1/10W J  |
| R1905           | NRSA02J-102X | MG R      | 1kΩ 1/10W J   |

**CAPACITOR**

|          |              |           |              |
|----------|--------------|-----------|--------------|
| C1001    | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K  |
| C1002    | QETN1HM-107Z | E CAP.    | 100μF 50V M  |
| C1003    | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K  |
| C1004    | QETN1CM-107Z | E CAP.    | 100μF 16V M  |
| C1007    | NCB21HK-222X | C CAP.    | 2200pF 50V K |
| C1008    | QETN1HM-106Z | E CAP.    | 10μF 50V M   |
| C1101-02 | QETN1CM-107Z | E CAP.    | 100μF 16V M  |
| C1104    | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1105    | QENC1HM-474Z | BP E CAP. | 0.47μF 50V M |
| C1106    | QETN1HM-106Z | E CAP.    | 10μF 50V M   |
| C1107    | QETN1AM-227Z | E CAP.    | 220μF 10V M  |
| C1108    | NDC21HJ-120X | C CAP.    | 12pF 50V J   |
| C1121-22 | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1123    | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1124-25 | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1128    | QETN1CM-107Z | E CAP.    | 100μF 16V M  |
| C1129    | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1130    | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1131    | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1132    | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1134    | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1135    | NDC21HJ-181X | C CAP.    | 180pF 50V J  |
| C1136-39 | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1140    | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1141    | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1151    | QETN1AM-227Z | E CAP.    | 220μF 10V M  |
| C1152    | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1153    | QETN1AM-107Z | E CAP.    | 100μF 10V M  |
| C1154    | NDC21HJ-121X | C CAP.    | 120pF 50V J  |
| C1155    | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1161    | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1163    | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1171    | NDC21HJ-221X | C CAP.    | 220pF 50V J  |
| C1172    | NDC21HJ-560X | C CAP.    | 56pF 50V J   |
| C1173    | NDC21HJ-221X | C CAP.    | 220pF 50V J  |
| C1174    | NDC21HJ-121X | C CAP.    | 120pF 50V J  |
| C1192    | QETN1CM-227Z | E CAP.    | 220μF 16V M  |
| C1193    | NCB21HK-103X | C CAP.    | 0.01μF 50V K |
| C1201    | QETN1CM-227Z | E CAP.    | 220μF 16V M  |
| C1202    | NCB21HK-102X | C CAP.    | 1000pF 50V K |
| C1203-04 | QETN1HM-105Z | E CAP.    | 1μF 50V M    |
| C1205-06 | QETN1HM-106Z | E CAP.    | 10μF 50V M   |
| C1207    | QETN1CM-227Z | E CAP.    | 220μF 16V M  |
| C1211    | NCB21HK-102X | C CAP.    | 1000pF 50V K |
| C1212-13 | QETN1HM-105Z | E CAP.    | 1μF 50V M    |
| C1214-15 | QETN1HM-106Z | E CAP.    | 10μF 50V M   |
| C1216-17 | QETN1HM-105Z | E CAP.    | 1μF 50V M    |
| C1218-19 | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1220    | QETN1HM-105Z | E CAP.    | 1μF 50V M    |
| C1221-22 | QETN1CM-107Z | E CAP.    | 100μF 16V M  |
| C1223-24 | QETN1HM-105Z | E CAP.    | 1μF 50V M    |
| C1231-33 | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1234    | NCB21HK-102X | C CAP.    | 1000pF 50V K |
| C1301    | QETN1CM-227Z | E CAP.    | 220μF 16V M  |
| C1302    | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K  |
| C1303    | QETN1EM-476Z | E CAP.    | 47μF 25V M   |
| C1304    | QENC1CM-476Z | BP E CAP. | 47μF 16V M   |
| C1305    | QETN1HM-226Z | E CAP.    | 22μF 50V M   |

| △ Symbol No.     | Part No.     | Part Name | Description   |
|------------------|--------------|-----------|---------------|
| <b>CAPACITOR</b> |              |           |               |
| C1306            | NCB21HK-223X | C CAP.    | 0.022μF 50V K |
| C1307-08         | QENC1HM-105Z | BP E CAP. | 1μF 50V M     |
| C1309            | NDC21HJ-390X | C CAP.    | 39pF 50V J    |
| C1311-13         | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1314            | NCB21HK-222X | C CAP.    | 2200pF 50V K  |
| C1315            | NCB21CK-474X | C CAP.    | 0.47μF 16V K  |
| C1316            | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1317            | NCB21EK-154X | C CAP.    | 0.15μF 25V K  |
| C1318            | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1319            | NCB21HK-332X | C CAP.    | 3300pF 50V K  |
| C1320            | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1321-22         | NDC21HJ-150X | C CAP.    | 15pF 50V J    |
| C1323            | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1325-26         | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1327            | QETN1CM-227Z | E CAP.    | 220μF 16V M   |
| C1328-32         | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1342-44         | NDC21HJ-220X | C CAP.    | 22pF 50V J    |
| C1345            | NDC21HJ-121X | C CAP.    | 120pF 50V J   |
| C1363-65         | QETN1HM-106Z | E CAP.    | 10μF 50V M    |
| C1387-88         | QETN1EM-476Z | E CAP.    | 47μF 25V M    |
| C1389-90         | QETN0JM-228Z | E CAP.    | 2200μF 6.3V M |
| C1392            | NDC21HJ-680X | C CAP.    | 68pF 50V J    |
| C1396-98         | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1403            | QFLC2AJ-104Z | M CAP.    | 0.1μF 100V J  |
| C1404            | NCB21HK-104X | CHIP CAP. | 0.1μF 50V K   |
| C1405            | NDC21HJ-820X | C CAP.    | 82pF 50V J    |
| C1406            | QETN1VM-108  | E CAP.    | 1000μF 35V M  |
| C1408            | QETN1VM-337Z | E CAP.    | 330μF 35V M   |
| C1409-10         | QFV71HJ-474Z | MF CAP.   | 0.47μF 50V J  |
| C1412            | QFLC2AJ-104Z | M CAP.    | 0.1μF 100V J  |
| C1417-18         | QETN1CM-108Z | E CAP.    | 1000μF 16V M  |
| C1419            | NCB21HK-682X | C CAP.    | 6800pF 50V K  |
| C1461            | QETN1HM-226Z | E CAP.    | 22μF 50V M    |
| C1551-52         | NCB21CK-224X | C CAP.    | 0.22μF 16V K  |
| C1553            | QETN1EM-476Z | E CAP.    | 47μF 25V M    |
| C1554-55         | NCB21CK-224X | C CAP.    | 0.22μF 16V K  |
| C1601-02         | QDC31HJ-2R0Z | C CAP.    | 2.0pF 50V J   |
| C1603-04         | NCB21HK-103X | C CAP.    | 0.01μF 50V K  |
| C1605-06         | QETN1HM-106Z | E CAP.    | 10μF 50V M    |
| C1607-08         | NCF21EZ-104X | C CAP.    | 0.1μF 25V Z   |
| C1613-14         | NDC21HJ-471X | C CAP.    | 470pF 50V J   |
| C1615            | NCF21EZ-104X | C CAP.    | 0.1μF 25V Z   |
| C1616-18         | QETN1HM-106Z | E CAP.    | 10μF 50V M    |
| C1619            | NCF21EZ-104X | C CAP.    | 0.1μF 25V Z   |
| C1620            | QETN1HM-106Z | E CAP.    | 10μF 50V M    |
| C1621-24         | NCB21HK-102X | C CAP.    | 1000pF 50V K  |
| C1625-26         | NDC21HJ-391X | C CAP.    | 390pF 50V J   |
| C1627-28         | NCB21HK-102X | C CAP.    | 1000pF 50V K  |
| C1629            | NCB21HK-103X | C CAP.    | 0.01μF 50V K  |
| C1630            | NCF21EZ-104X | C CAP.    | 0.1μF 25V Z   |
| C1631            | QETN1CM-107Z | E CAP.    | 100μF 16V M   |
| C1632            | NCF21EZ-104X | C CAP.    | 0.1μF 25V Z   |
| C1633-34         | QETN1HM-105Z | E CAP.    | 1μF 50V M     |
| C1635            | NCB21HK-562X | C CAP.    | 5600pF 50V K  |
| C1636            | QETN1CM-107Z | E CAP.    | 100μF 16V M   |
| C1637-38         | NDC21HJ-221X | C CAP.    | 220pF 50V J   |
| C1639-40         | QETN1HM-106Z | E CAP.    | 10μF 50V M    |
| C1641            | QETN1EM-476Z | E CAP.    | 47μF 25V M    |
| C1642            | NCB21HK-562X | C CAP.    | 5600pF 50V K  |
| C1644-45         | NDC21HJ-470X | C CAP.    | 470pF 50V J   |
| C1646            | NDC21HJ-820X | C CAP.    | 82pF 50V J    |
| C1647            | NCB21HK-472X | C CAP.    | 4700pF 50V K  |
| C1648            | NDC21HJ-180X | C CAP.    | 18pF 50V J    |
| C1652-53         | QETN1HM-105Z | E CAP.    | 1μF 50V M     |
| C1654            | QETN1HM-107Z | E CAP.    | 100μF 50V M   |
| C1655            | QETN1HM-106Z | E CAP.    | 10μF 50V M    |
| C1656-57         | NCF21HZ-224X | C CAP.    | 0.22μF 50V Z  |
| C1658            | QETN1HM-228  | E CAP.    | 2200μF 50V M  |
| C1661-62         | NCF21HZ-224X | C CAP.    | 0.22μF 50V Z  |
| C1663-64         | QETN1VM-108  | E CAP.    | 1000μF 35V M  |
| C1667            | QETN1CM-227Z | E CAP.    | 220μF 16V M   |
| C1676-77         | NCB21HK-103X | C CAP.    | 0.01μF 50V K  |
| C1679            | QETN1HM-474Z | E CAP.    | 0.47μF 50V M  |

| △ Symbol No.       | Part No.     | Part Name      | Description   |
|--------------------|--------------|----------------|---------------|
| <b>CAPACITOR</b>   |              |                |               |
| C1682              | QETN1CM-227Z | E CAP.         | 220μF 16V M   |
| C1701              | NDC21HJ-471X | C CAP.         | 470pF 50V J   |
| C1702              | NCB21HK-682X | C CAP.         | 6800pF 50V K  |
| C1703              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1704              | QETN1AM-227Z | E CAP.         | 220μF 10V M   |
| C1705-06           | NDC21HJ-9R0X | C CAP.         | 9.0pF 50V J   |
| C1707              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1708              | NCB21HK-333X | C CAP.         | 0.033μF 50V K |
| C1709              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1710              | QETN1EM-476Z | E CAP.         | 47μF 25V M    |
| C1711              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1714              | QETN1HM-474Z | E CAP.         | 0.47μF 50V M  |
| C1715              | QETN1EM-476Z | E CAP.         | 47μF 25V M    |
| C1717              | QETN1HM-106Z | E CAP.         | 10μF 50V M    |
| C1718              | NDC21HJ-471X | C CAP.         | 470pF 50V J   |
| C1719              | NCF21CZ-105X | C CAP.         | 1μF 16V Z     |
| C1720              | NCB21HK-102X | C CAP.         | 1000pF 50V K  |
| C1757              | NCS21HJ-471X | C CAP.         | 470pF 50V J   |
| C1758              | QETN1AM-227Z | E CAP.         | 220μF 10V M   |
| C1759              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1760-61           | NDC21HJ-150X | C CAP.         | 15pF 50V J    |
| C1762              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1763              | QETN1EM-476Z | E CAP.         | 47μF 25V M    |
| C1764              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1766-68           | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1774              | NDC21HJ-151X | C CAP.         | 150pF 50V J   |
| C1776-77           | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1780              | NCB21HK-104X | CHIP CAP.      | 0.1μF 50V K   |
| C1781              | NDC21HJ-101X | C CAP.         | 100pF 50V J   |
| C1782              | NCB21HK-102X | C CAP.         | 1000pF 50V K  |
| C1783              | NDC21HJ-151X | C CAP.         | 150pF 50V J   |
| C1784              | QETN1CM-227Z | E CAP.         | 220μF 16V M   |
| C1785              | NCB21HK-102X | C CAP.         | 1000pF 50V K  |
| C1901              | QETN1CM-107Z | E CAP.         | 100μF 16V M   |
| C1902              | QETN1HM-106Z | E CAP.         | 10μF 50V M    |
| <b>TRANSFORMER</b> |              |                |               |
| T1101              | CE42697-001  | LOWPASS FILTER |               |
| T1111              | CE42697-001  | LOWPASS FILTER |               |
| T1121              | CE42697-001  | LOWPASS FILTER |               |
| <b>COIL</b>        |              |                |               |
| L1001-02           | QQL01BK-8R2Z | PEAKING COIL   | 8.2μH         |
| L1004              | QQL01BK-5R6Z | PEAKING COIL   | 5.6μH         |
| L1101              | QRN143J-0R0X | C R            | 0.0Ω 1/4W J   |
| L1102-05           | QQL03BJ-220Z | PEAKING COIL   | 22μH          |
| L1111              | QQL03BJ-220Z | PEAKING COIL   | 22μH          |
| L1121              | QQL03BJ-330Z | PEAKING COIL   | 33μH          |
| L1302              | NQL024J-5R6X | COIL           | 5.6μH         |
| L1601-02           | QRN143J-0R0X | C R            | 0.0Ω 1/4W J   |
| L1603              | QQL01BK-100Z | PEAKING COIL   | 10μH          |
| L1604              | QQL01BJ-180Z | PEAKING COIL   | 18μH          |
| L1605              | QQL01BJ-220Z | PEAKING COIL   | 22μH          |
| L1606-07           | QQL01BK-5R6Z | PEAKING COIL   | 5.6μH         |
| L1701              | QQL01BK-331Z | PEAKING COIL   | 330μH         |
| L1702              | QQL01BK-3R9Z | PEAKING COIL   | 3.9μH         |
| L1752              | QRN143J-0R0X | C R            | 0.0Ω 1/4W J   |
| L1753              | QQL01BK-4R7Z | PEAKING COIL   | 4.7μH         |
| <b>DIODE</b>       |              |                |               |
| D1201-11           | MA3130/H/-X  | ZENER DIODE    |               |
| D1214-15           | MA3130/H/-X  | ZENER DIODE    |               |
| D1402              | BYD33D-T3    | SI DIODE       |               |
| D1403-04           | MA3330/L/-X  | ZENER DIODE    |               |
| D1461              | MA111-X      | SI DIODE       |               |
| D1462              | MA3220/M/-X  | ZENER DIODE    |               |
| D1502              | MA111-X      | SI DIODE       |               |
| D1504              | MA111-X      | SI DIODE       |               |

| △ Symbol No.      | Part No.        | Part Name         | Description |
|-------------------|-----------------|-------------------|-------------|
| <b>DIODE</b>      |                 |                   |             |
| D1601             | MA3062/M/-X     | ZENER DIODE       |             |
| D1653-54          | MA3330/L/-X     | ZENER DIODE       |             |
| D1657             | MA111-X         | SI DIODE          |             |
| D1658             | MA153A-X        | SI DIODE          |             |
| D1660             | MA111-X         | SI DIODE          |             |
| D1661             | MA153A-X        | SI DIODE          |             |
| D1664             | MA111-X         | SI DIODE          |             |
| D1669             | MA152WK-X       | SI DIODE          |             |
| D1670             | MA111-X         | SI DIODE          |             |
| D1701-02          | MA111-X         | SI DIODE          |             |
| D1704             | 1SS244-T2       | SI DIODE          |             |
| D1708             | MA111-X         | SI DIODE          |             |
| D1709             | MA3068/M/-X     | ZENER DIODE       |             |
| D1712             | MA111-X         | SI DIODE          |             |
| D1753             | MA111-X         | SI DIODE          |             |
| D1754             | MA3062/M/-X     | ZENER DIODE       |             |
| D1771-76          | MA3056/M/-X     | ZENER DIODE       |             |
| D1901             | MA3130/H/-X     | ZENER DIODE       |             |
| <b>TRANSISTOR</b> |                 |                   |             |
| Q1101-04          | 2SC2412K/QR/-X  | SI TRANSISTOR     |             |
| Q1111             | 2SC2412K/QR/-X  | SI TRANSISTOR     |             |
| Q1112             | 2SA1037AK/QR/-X | SI TRANSISTOR     |             |
| Q1113-14          | 2SC2412K/QR/-X  | SI TRANSISTOR     |             |
| Q1121             | 2SC2412K/QR/-X  | SI TRANSISTOR     |             |
| Q1122             | 2SA1037AK/QR/-X | SI TRANSISTOR     |             |
| Q1123-24          | 2SC2412K/QR/-X  | SI TRANSISTOR     |             |
| Q1131-32          | 2SC2412K/QR/-X  | SI TRANSISTOR     |             |
| Q1201-02          | 2SC2712/YG/-X   | SI TRANSISTOR     |             |
| Q1203             | 2SC1815/YG/-T   | SI TRANSISTOR     |             |
| Q1204-05          | 2SC2712/YG/-X   | SI TRANSISTOR     |             |
| Q1206-07          | DTC323TK-X      | DIGI. TRANSISTOR  |             |
| Q1208             | 2SA1162/YG/-X   | SI TRANSISTOR     |             |
| Q1209             | 2SA1015/YG/-T   | SI TRANSISTOR     |             |
| Q1211             | 2SA1162/YG/-X   | SI TRANSISTOR     |             |
| Q1213-14          | 2SC2712/YG/-X   | SI TRANSISTOR     |             |
| Q1215-16          | DTC323TK-X      | DIGI. TRANSISTOR  |             |
| Q1217             | 2SA1162/YG/-X   | SI TRANSISTOR     |             |
| Q1220-21          | 2SC2712/YG/-X   | SI TRANSISTOR     |             |
| Q1303-04          | 2SA1162/YG/-X   | SI TRANSISTOR     |             |
| Q1305             | 2SC2712/YG/-X   | SI TRANSISTOR     |             |
| Q1346             | 2SC2712/YG/-X   | SI TRANSISTOR     |             |
| Q1351             | DTC124EKA-X     | DIGI. TRANSISTOR  |             |
| Q1381-83          | 2SC2712/YG/-X   | SI TRANSISTOR     |             |
| Q1461-62          | 2SC2712/YG/-X   | SI TRANSISTOR     |             |
| Q1603             | 2SC2712/YG/-X   | SI TRANSISTOR     |             |
| Q1651             | 2SA1162/YG/-X   | SI TRANSISTOR     |             |
| Q1652-53          | DTC323TK-X      | DIGI. TRANSISTOR  |             |
| Q1657             | 2SC2712/YG/-X   | SI TRANSISTOR     |             |
| Q1659-60          | 2SA1162/YG/-X   | SI TRANSISTOR     |             |
| Q1701-08          | 2SC2712/YG/-X   | SI TRANSISTOR     |             |
| Q1709             | 2SA1162/YG/-X   | SI TRANSISTOR     |             |
| Q1752             | 2SA1162/YG/-X   | SI TRANSISTOR     |             |
| Q1901             | 2SA1162/YG/-X   | SI TRANSISTOR     |             |
| Q1902             | 2SC2712/YG/-X   | SI TRANSISTOR     |             |
| <b>IC</b>         |                 |                   |             |
| IC1101            | TC9090AN        | I.C. (DIGI-MOS)   |             |
| IC1301            | CXA1545AS       | I.C. (MONO-ANA)   |             |
| IC1303            | TDA9143/N3      | I.C. (MONO-ANA)   |             |
| IC1304            | TDA4665/V5      | I.C. (MONO-ANA)   |             |
| IC1305            | LA7016          | I.C. (MONO-ANA)   |             |
| IC1401            | LA7841          | I.C. (MONO-ANA)   |             |
| IC1551            | LA6515          | I.C. (MONO-ANA)   |             |
| IC1601            | MSP3410DPPC5-8C | I C               |             |
| IC1602            | BA4558F-X       | I.C. (MONO-ANA)   |             |
| IC1651            | TA8246AH        | I.C. (HYBRID)     |             |
| IC1701            | M37280MK-1055P  | I.C. (MICRO-COMP) |             |
| IC1702            | L78LRO5E-MA     | I.C.              |             |
| IC1703            | AT24C16-32WFX1  | I.C.              |             |
| IC1754            | SDA5275S        | I.C. (MICRO-PROC) |             |
| IC1755            | MSM514400D-60ZS | I.C. (D-RAM)      |             |

(SERVICE)

| Symbol No. | Part No. | Part Name | Description |
|------------|----------|-----------|-------------|
|------------|----------|-----------|-------------|

**OTHERS**

|          |              |                  |              |
|----------|--------------|------------------|--------------|
| CN1002   | QGF1220C2-25 | FFC/FPC CONNECTO |              |
| J1651    | QNN0296-001  | PIN JACK         |              |
| K1001    | QRN143J-OROX | C R              | 0.0Ω 1/4W J  |
| K1009    | QRN143J-OROX | C R              | 0.0Ω 1/4W J  |
| K1101    | QQR0621-002Z | BEADS CORE       |              |
| K1401    | QQR0621-002Z | BEADS CORE       |              |
| K1701    | QQR0621-002Z | BEADS CORE       |              |
| LC1101   | TA78L005AP-T | I.C. (H)         |              |
| LC1601   | CE42142-103Z | EMI FILTER       |              |
| TU1001   | QAU0132-001  | TUNER            |              |
| W1001-02 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| X1311    | CE40749-001Z | CRYSTAL          |              |
| X1312    | CE40668-001Z | CRYSTAL          |              |
| X1601    | CE42546-001Z | CRYSTAL          |              |
| X1701    | CST8.00MTW   | CER. RESONATOR   |              |
| X1752    | QAX0351-001Z | CRYSTAL          |              |
| Y1301-06 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1312-13 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1315    | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1328    | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1401    | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1502-05 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1653    | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1657-58 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1661-62 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1701-03 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |
| Y1750-53 | NRSA02J-OROX | MG R             | 0.0Ω 1/10W J |

**POWER & DEF PW BOARD ASS'Y (SMD-2006A-U2)**

Refer to PARTS LIST in page 44 for this P.W. board.

**CRT SOCKET PW BOARD ASS'Y (SMD-3006A-U2)**

Refer to PARTS LIST in page 46 for this P.W. board.

**FRONT CONTROL PW BOARD ASS'Y (SMD-8007A-U2)**

Refer to PARTS LIST in page 47 for this P.W. board.

**SIDE CONTROL JACK PW BOARD ASS'Y (SMD-8107A-U2)**

Refer to PARTS LIST in page 47 for this P.W. board.

**BBE PW BOARD ASS'Y (SMD0A001A-U2)**

Refer to PARTS LIST in page 47 for this P.W. board.

**IF PW BOARD ASS'Y (SMD0F903A-U2)**

| Symbol No. | Part No. | Part Name | Description |
|------------|----------|-----------|-------------|
|------------|----------|-----------|-------------|

**RESISTOR**

|          |              |      |               |
|----------|--------------|------|---------------|
| R0020    | NRSA02J-472X | MG R | 4.7kΩ 1/10W J |
| R0021    | NRSA02J-122X | MG R | 1.2kΩ 1/10W J |
| R0022    | NRSA02J-331X | MG R | 330Ω 1/10W J  |
| R0023    | NRSA02J-680X | MG R | 68Ω 1/10W J   |
| R0024    | NRSA02J-330X | MG R | 33Ω 1/10W J   |
| R0030-31 | NRSA02J-150X | MG R | 15Ω 1/10W J   |
| R0057    | NRSA02J-472X | MG R | 4.7kΩ 1/10W J |
| R0058-59 | NRSA02J-273X | MG R | 27kΩ 1/10W J  |
| R0063    | NRSA02J-822X | MG R | 8.2kΩ 1/10W J |
| R0064    | NRSA02J-0R0X | MG R | 0.0Ω 1/10W J  |
| R0065    | NRSA02J-470X | MG R | 47Ω 1/10W J   |
| R0070-71 | NRSA02J-393X | MG R | 39kΩ 1/10W J  |
| R0080-81 | NRSA02J-473X | MG R | 47kΩ 1/10W J  |
| R0082    | NRSA02J-272X | MG R | 2.7kΩ 1/10W J |
| R0101    | NRSA02J-822X | MG R | 8.2kΩ 1/10W J |
| R0102    | NRSA02J-471X | MG R | 470Ω 1/10W J  |
| R0108    | NRSA02J-102X | MG R | 1kΩ 1/10W J   |
| R0109    | NRSA02J-121X | MG R | 120Ω 1/10W J  |
| R0111-12 | NRSA02J-151X | MG R | 150Ω 1/10W J  |
| R0113    | NRSA02J-271X | MG R | 270Ω 1/10W J  |
| R0114    | NRSA02J-0R0X | MG R | 0.0Ω 1/10W J  |
| R0116    | NRSA02J-102X | MG R | 1kΩ 1/10W J   |
| R0140    | NRSA02J-474X | MG R | 470kΩ 1/10W J |
| R0141    | NRSA02J-101X | MG R | 100Ω 1/10W J  |
| R0142    | NRSA02J-391X | MG R | 390Ω 1/10W J  |
| R0143    | NRSA02J-750X | MG R | 75Ω 1/10W J   |
| R0144    | NRSA02J-474X | MG R | 470kΩ 1/10W J |
| R0145    | NRSA02J-332X | MG R | 3.3kΩ 1/10W J |
| R0146    | NRSA02J-104X | MG R | 100kΩ 1/10W J |

**CAPACITOR**

|          |              |        |        |       |   |
|----------|--------------|--------|--------|-------|---|
| C0020-23 | NCB21HK-472X | C CAP. | 4700pF | 50V   | K |
| C0030    | NCB21HK-472X | C CAP. | 4700pF | 50V   | K |
| C0040    | NCB21HK-682X | C CAP. | 6800pF | 50V   | K |
| C0041    | QETN1CM-107Z | E CAP. | 100μF  | 16V   | M |
| C0042    | NCB21HK-103X | C CAP. | 0.01μF | 50V   | K |
| C0043    | QETN1CM-107Z | E CAP. | 100μF  | 16V   | M |
| C0044    | NCB21HK-103X | C CAP. | 0.01μF | 50V   | K |
| C0045-46 | NRSA02J-0R0X | MG R   | 0.0Ω   | 1/10W | J |
| C0047    | QETN1CM-227Z | E CAP. | 220μF  | 16V   | M |
| C0048    | NCB21HK-103X | C CAP. | 0.01μF | 50V   | K |
| C0050    | QETN1HM-105Z | E CAP. | 1μF    | 50V   | M |
| C0054    | NCB21HK-103X | C CAP. | 0.01μF | 50V   | K |

| △ Symbol No.       | Part No.       | Part Name       | Description   |
|--------------------|----------------|-----------------|---------------|
| <b>CAPACITOR</b>   |                |                 |               |
| C0055              | QETN1CM-107Z   | E CAP.          | 100μF 16V M   |
| C0056              | QETN1HM-474Z   | E CAP.          | 0.47μF 50V M  |
| C0057              | NDC21HJ-102X   | C CAP.          | 1000pF 50V J  |
| C0058              | NCB21HK-472X   | C CAP.          | 4700pF 50V K  |
| C0060              | NRSA02J-0R0X   | MG R            | 0.0Ω 1/10W J  |
| C0062              | QETN1HM-474Z   | E CAP.          | 0.47μF 50V M  |
| C0063              | NRSA02J-0R0X   | MG R            | 0.0Ω 1/10W J  |
| C0064              | NCB21HK-472X   | C CAP.          | 4700pF 50V K  |
| C0065              | QETN1HM-105Z   | E CAP.          | 1μF 50V M     |
| C0069-70           | NCB21HK-103X   | C CAP.          | 0.01μF 50V K  |
| C0071              | QETN1HM-336Z   | E CAP.          | 33μF 50V M    |
| C0080-81           | NCB21HK-472X   | C CAP.          | 4700pF 50V K  |
| C0101              | QETN1CM-227Z   | E CAP.          | 220μF 16V M   |
| C0104              | NDC21HJ-271X   | C CAP.          | 270pF 50V J   |
| C0105              | NCB21HK-103X   | C CAP.          | 0.01μF 50V K  |
| C0140              | QETN1HM-335Z   | E CAP.          | 3.3μF 50V M   |
| C0141              | NDC21HJ-561X   | C CAP.          | 560pF 50V J   |
| C0142              | QETN1HM-105Z   | E CAP.          | 1μF 50V M     |
| C0143              | QFLC1HJ-683Z   | M CAP.          | 0.068μF 50V J |
| C0144              | QETN1HM-335Z   | E CAP.          | 3.3μF 50V M   |
| C0145              | NCB21HK-222X   | C CAP.          | 2200pF 50V K  |
| <b>TRANSFORMER</b> |                |                 |               |
| T0020              | QQR0626-001    | I.F.TRANSF.     |               |
| T0050              | CELT001-307    | C.WAVE TRANSF.  |               |
| <b>COIL</b>        |                |                 |               |
| L0020              | QQLZ014-R47    | PEAKING COIL    | 0.47μH        |
| L0021              | NQL011K-1R5X   | COIL            | 1.5μH         |
| L0030              | NQL011K-2R2X   | COIL            | 2.2μH         |
| L0040              | NQL024J-120X   | COIL            | 12μH          |
| L0042              | NQL024J-330X   | COIL            | 33μH          |
| L0054              | NQL024J-330X   | COIL            | 33μH          |
| L0070              | NQL011K-5R6X   | COIL            | 5.6μH         |
| L0103-04           | NQL011K-8R2X   | COIL            | 8.2μH         |
| <b>TRANSISTOR</b>  |                |                 |               |
| Q0012              | 2SC5083/L-P/-T | SI TRANSISTOR   |               |
| Q0080              | 2SC2712/YG/-X  | SI TRANSISTOR   |               |
| Q0101              | 2SC2712/YG/-X  | SI TRANSISTOR   |               |
| Q0107              | 2SA1162/YG/-X  | SI TRANSISTOR   |               |
| Q0109-10           | 2SC2712/YG/-X  | SI TRANSISTOR   |               |
| <b>IC</b>          |                |                 |               |
| IC0010             | TA8865BN       | I.C. (MONO-ANA) |               |
| <b>OTHERS</b>      |                |                 |               |
| CF0010-11          | QAX0620-001    | CERAMIC FILTER  |               |
| CF0100             | TPSH6.0MB      | CERAMIC FILTER  |               |
| CF0140             | CSB503F30-T2   | CER. RESONATOR  |               |
| SF0010             | QAX0315-001    | SAW FILTER      |               |
| SF0012             | QAX0618-001    | SAW FILTER      |               |
| W0008              | NRSA02J-0R0X   | MG R            | 0.0Ω 1/10W J  |
| W0013              | NRSA02J-0R0X   | MG R            | 0.0Ω 1/10W J  |
| W0025              | NRSA02J-0R0X   | MG R            | 0.0Ω 1/10W J  |
| W0028-29           | NRSA02J-0R0X   | MG R            | 0.0Ω 1/10W J  |
| W0031-32           | NRSA02J-0R0X   | MG R            | 0.0Ω 1/10W J  |
| W0036              | NRSA02J-0R0X   | MG R            | 0.0Ω 1/10W J  |
| W0074              | NRSA02J-0R0X   | MG R            | 0.0Ω 1/10W J  |
| W0093              | QQL244K-820Z   | PEAKING COIL    | 82μH          |
| W0094-96           | NRSA02J-0R0X   | MG R            | 0.0Ω 1/10W J  |
| W0098              | NRSA02J-0R0X   | MG R            | 0.0Ω 1/10W J  |
| Y0002-04           | NRSA02J-0R0X   | MG R            | 0.0Ω 1/10W J  |

**AV TERMINAL PW BOARD ASS'Y (SMD0J003A-U2)**

Refer to PARTS LIST in page 49 for this P.W. board.

**SUB MICON & AUTO PANORAMA PW BOARD ASS'Y (SMD0W003A-U2)**

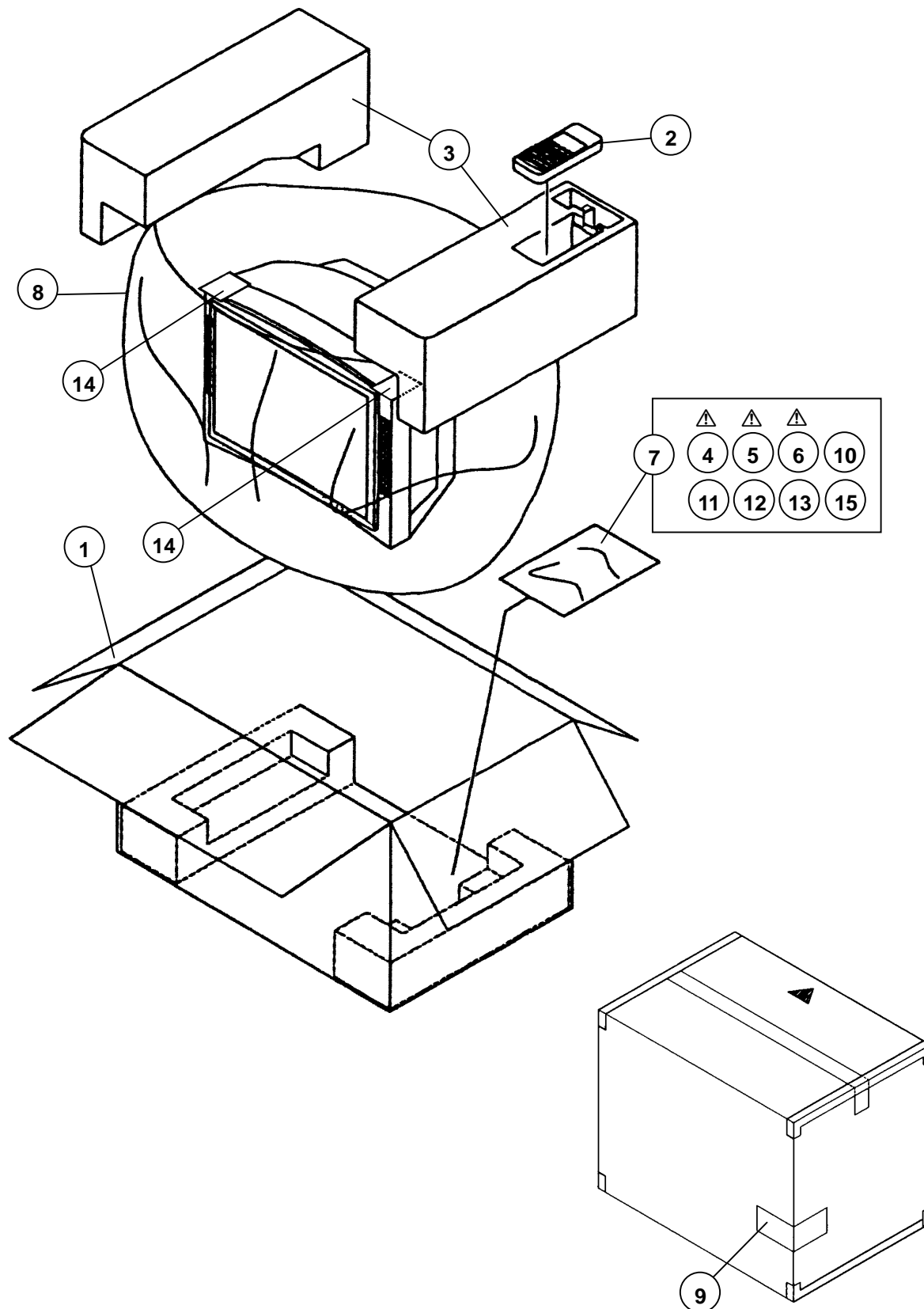
Refer to PARTS LIST in page 49 for this P.W. board.

**100Hz PW BOARD ASS'Y (SMD0Z005A-U2)**

Refer to PARTS LIST in page 50 for this P.W. board.

# AV-32WL1EU / AV-32WL1EI / AV-32WL1EK

## PACKING



# AV-32WL1EU / AV-32WL1EI / AV-32WL1EK

## PACKING PARTS LIST

| △ Ref. No.        | Part No.       | Part Name       | Description                 |
|-------------------|----------------|-----------------|-----------------------------|
| <b>AV-32WL1EU</b> |                |                 |                             |
| 1                 | AEM1002-071-E  | PACKING CASE    |                             |
| 2                 | RM-C54-1C      | REMOCON UNIT    |                             |
| 3                 | LC10859-002A-U | CUSHION ASSY    | 4pcs in 1set                |
| △ 4               | LCT0803-001A-U | INST BOOK       | For ENG/GER/FRA/NED/ITA/ESP |
| △ 5               | LCT0804-001A-U | INST BOOK       | For FIN/NOR/DEN/SWE/POR     |
| △ 6               | LCT0805-001A-U | INST BOOK       | For POL/CZE/HUN/ROM/BUL/RUS |
| 7                 | AEM3021-002-E  | DOCUMENT BAGS   |                             |
| 8                 | AEM1047-002-E  | POLY BAG        |                             |
| 9                 | AEM1039-093-E  | EURO LABEL      |                             |
| 10                | BT-54013-1E    | WARRANTY CARD   |                             |
| 11                | 32WL1EU-HSAE   | S. DIAGRAM      | ONLY ITALY (SERVICE)        |
| 12                | AEM1054-001-E  | X-RAY CARD      |                             |
| 14                | LC31379-001A   | TOP SHEET       |                             |
| 15                | LC30789-002A-U | WARNING LABEL   |                             |
| <b>AV-32WL1EI</b> |                |                 |                             |
| 1                 | AEM1002-071-E  | PACKING CASE    |                             |
| 2                 | RM-C55-1C      | REMOCON UNIT    |                             |
| 3                 | LC10859-002A-U | PACKING CUSHION | 4pcs in 1set                |
| △ 4               | LCT0807-001A-U | INST. BOOK      |                             |
| 7                 | AEM3021-002-E  | POLY BAG        |                             |
| 8                 | AEM1047-002-E  | POLY BAG        |                             |
| 9                 | AEM1052-002-E  | EURO LABEL      |                             |
| 10                | BT-54013-1E    | WARRANTY CARD   |                             |
| 14                | LC31379-001A   | TOP SHEET       |                             |
| <b>AV-32WL1EK</b> |                |                 |                             |
| 1                 | AEM1002-071-E  | PACKING CASE    |                             |
| 2                 | RM-C55-1C      | REMOCON UNIT    |                             |
| 3                 | LC10859-002A-U | PACKING CUSHION | 4pcs in 1set                |
| △ 4               | LCT0806-001A-U | INST. BOOK      |                             |
| 7                 | AEM3021-002-E  | POLY BAG        |                             |
| 8                 | AEM1047-002-E  | POLY BAG        |                             |
| 9                 | AEM1052-001-E  | EURO LABEL      |                             |
| 10                | BT-54013-1E    | WARRANTY CARD   |                             |
| 13                | AEM3148-001-E  | REG SHEET       |                             |
| 14                | LC31379-001A   | TOP SHEET       |                             |

# JVC

VICTOR COMPANY OF JAPAN, LIMITED

TELEVISION RECEIVER DIVISION 1106 Heta, Iwai-city, Ibaraki-prefecture, 306-0698, Japan

AV-32WL1EU-U #4  
AV-32WL1EI-U #4  
AV-32WL1EK-U #4



Printed in Japan  
VP 0006  
DP3052

CONTENTS

SEMICONDUCTOR SHAPES ..... 2-2

BLOCK DIAGRAM ..... 2-3

CIRCUIT DIAGRAMS

    MAIN PWB CIRCUIT DIAGRAM ..... 2-5

    POWER & DEF PWB CIRCUIT DIAGRAM ..... 2-11

    SUB MICON & AUTO PANORAMA PWB CIRCUIT DIAGRAM ..... 2-13

    100Hz PWB CIRCUIT DIAGRAM ..... 2-15

    IF PWB CIRCUIT DIAGRAM [AV-32WL1EU / AV-32WL1EI] ..... 2-17

    IF PWB CIRCUIT DIAGRAM [AV-32WL1EK] ..... 2-19

    BBE PWB CURCUIT DIAGRAM ..... 2-21

    FRONT CONTROL PWB / SIDE CONTROL JACK PWB CURCUIT DIAGRAM ..... 2-23

    CRT SOCKET PWB CIRCUIT DIAGRAM ..... 2-25

    AV TERMINAL PWB CIRCUIT DIAGRAM ..... 2-27

PATTERN DIAGRAMS

    MAIN PWB PATTERN..... 2-29

    POWER & DEF PWB PATTERN ..... 2-31

    AV TERMINAL PWB PATTERN ..... 2-33

    IF PWB PATTERN ..... 2-34

    CRT SOCKET PWB PATTERN ..... 2-35

    FRONT CONTROL PWB PATTERN ..... 2-37

    SIDE CONTROL JACK PWB PATTERN ..... 2-38

    100Hz PWB PATTERN (PARTS SIDE) ..... 2-39

    100Hz PWB PATTERN (SOLDER SIDE) ..... 2-40

    SUB MICON & AUTOPANORAMA PWB PATTERN ..... 2-41

    BBE PWB PATTERN ..... 2-42

SEMICONDUCTOR SHAPES

TRANSISTOR

| BOTTOM VIEW | FRONT VIEW |  |  |  | TOP VIEW    |
|-------------|------------|--|--|--|-------------|
|             |            |  |  |  | CHIP TR<br> |

IC

| BOTTOM VIEW | FRONT VIEW |  |  | TOP VIEW |
|-------------|------------|--|--|----------|
|             |            |  |  |          |

CHIP IC

| TOP VIEW |  |
|----------|--|
|          |  |

AV-32WL1EU / AV-32WL1EI / AV-32WL1EK

STANDARD CIRCUIT DIAGRAM

NOTE ON USING CIRCUIT DIAGRAMS

1. SAFETY

The components identified by the⚠ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2.SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

|  |   |
|--|---|
| (1)Input signal  | :PAL Colour bar signal  |
| (2)Setting positions of each knob/button and variable resistor | :Original setting position when shipped                               |
| (3)Internal resistance of tester                               | :DC 20k Ω/V   |
| (4)Oscilloscope sweeping time                                  | :H ⇒ 20μS/div<br>:V ⇒ 5mS/div<br>:Others ⇒ Sweeping time is specified |
| (5)Voltage values  | :All DC voltage values  |

\* Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3.INDICATION OF PARTS SYMBOL [EXAMPLE]

●In the PW board :R1209→R209

4.INDICATIONS ON THE CIRCUIT DIAGRAM

(1)Resistors

●Resistance value

|               |        |
|---------------|--------|
| No indication | :[Ω]   |
| K             | :[KΩ]  |
| M             | : [MΩ] |

●Rated allowable power

|               |               |
|---------------|---------------|
| No indication | :1/10[W]      |
| Others        | :As specified |

●Type

|               |                            |
|---------------|----------------------------|
| No indication | :Carbon resistor           |
| OMR           | :Oxide metal film resistor |
| MFR           | :Metal film resistor       |
| MPR           | :Metal plate resistor      |
| UNFR          | :Uninflammable resistor    |
| FR            | :Fusible resistor          |

\*Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2)Capacitors

●Capacitance value

|             |        |
|-------------|--------|
| 1 or higher | : [pF] |
| less than 1 | : [μF] |

●Withstand voltage

|               |                           |
|---------------|---------------------------|
| No indication | :DC50[V]                  |
| AC indicated  | :AC withstand voltage [V] |
| Others        | :DC withstand voltage [V] |

\*Electrolytic Capacitors  
47/50[Example]:Capacitance value [μF]/withstand voltage[V]

●Type

|               |                                    |
|---------------|------------------------------------|
| No indication | :Ceramic capacitor                 |
| MY            | :Mylar capacitor                   |
| MM            | :Metalized mylar capacitor         |
| PP            | :Polypropylene capacitor           |
| MPP           | :Metalized polypropylene capacitor |
| MF            | :Metalized film capacitor          |
| TF            | :Thin film capacitor               |
| BP            | :Bipolar electrolytic capacitor    |
| TAN           | :Tantalum capacitor                |

(3)Coils

|         |               |
|---------|---------------|
| No unit | : [μH]        |
| Others  | :As specified |

(4)Power Supply

|  |          |
|--|----------|
|  | :B1      |
|  | :12V(B2) |
|  | :9V      |
|  | :5V      |

\*Respective voltage values are indicated

(5)Test point

|  |                          |
|--|--------------------------|
|  | :Test point              |
|  | :Only test point display |

(6)Connecting method

|  |                        |
|--|------------------------|
|  | :Connector             |
|  | :Wrapping or soldering |
|  | :Receptacle            |

(7)Ground symbol

|  |                                |
|--|--------------------------------|
|  | :LIVE side ground              |
|  | :ISOLATED(NEUTRAL) side ground |
|  | :EARTH ground                  |
|  | :DIGITAL ground                |

5.NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (⊥) side GND and the ISOLATED(NEUTRAL) : (↯) side GND. Therefore, care must be taken for the following points.

- (1)Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2)Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus ( oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected , a fuse or any parts will be broken.

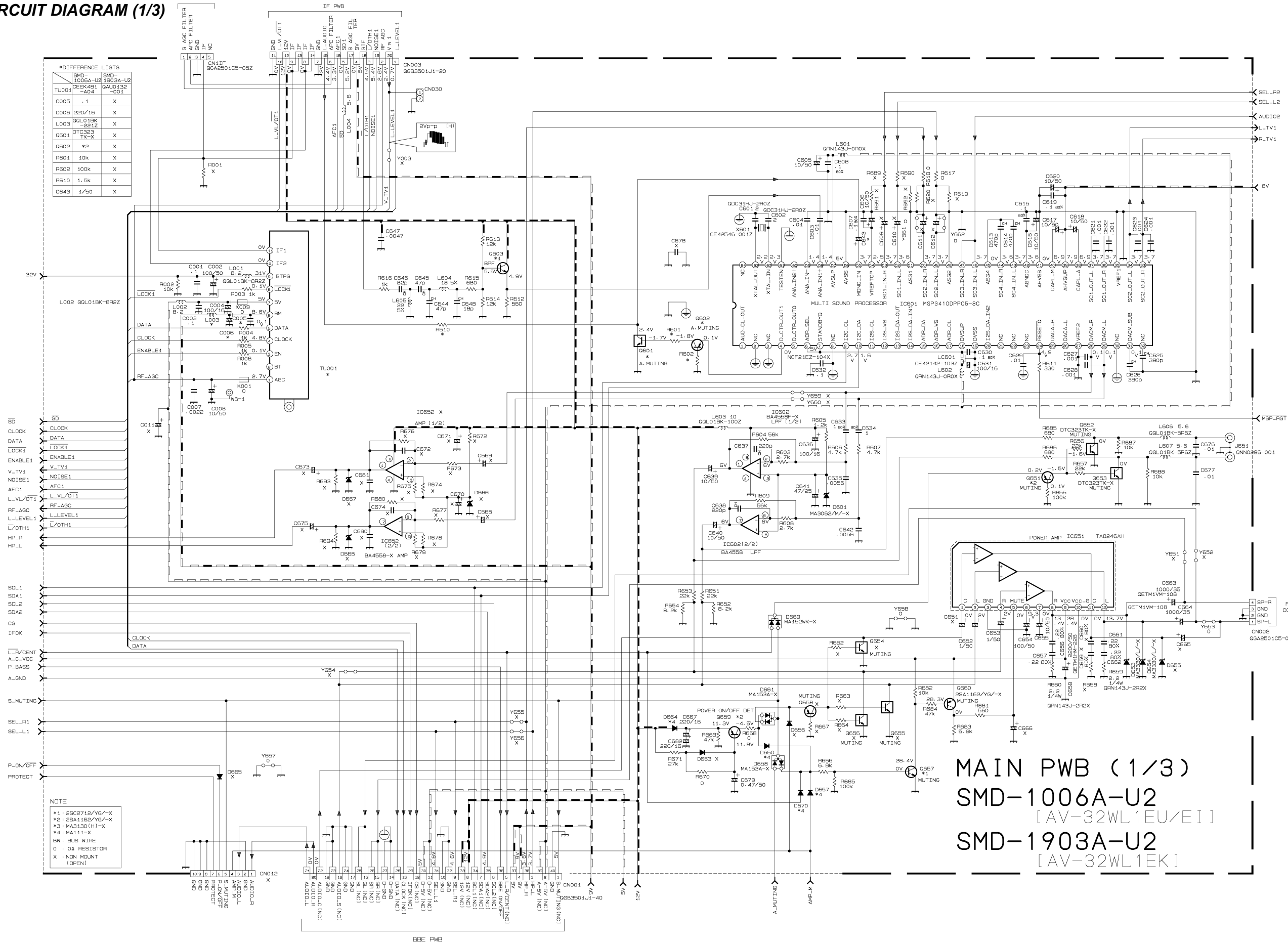
◇ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.



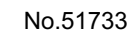
CIRCUIT DIAGRAMS  
MAIN PWB CIRCUIT DIAGRAM (1/3)

AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK

AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK



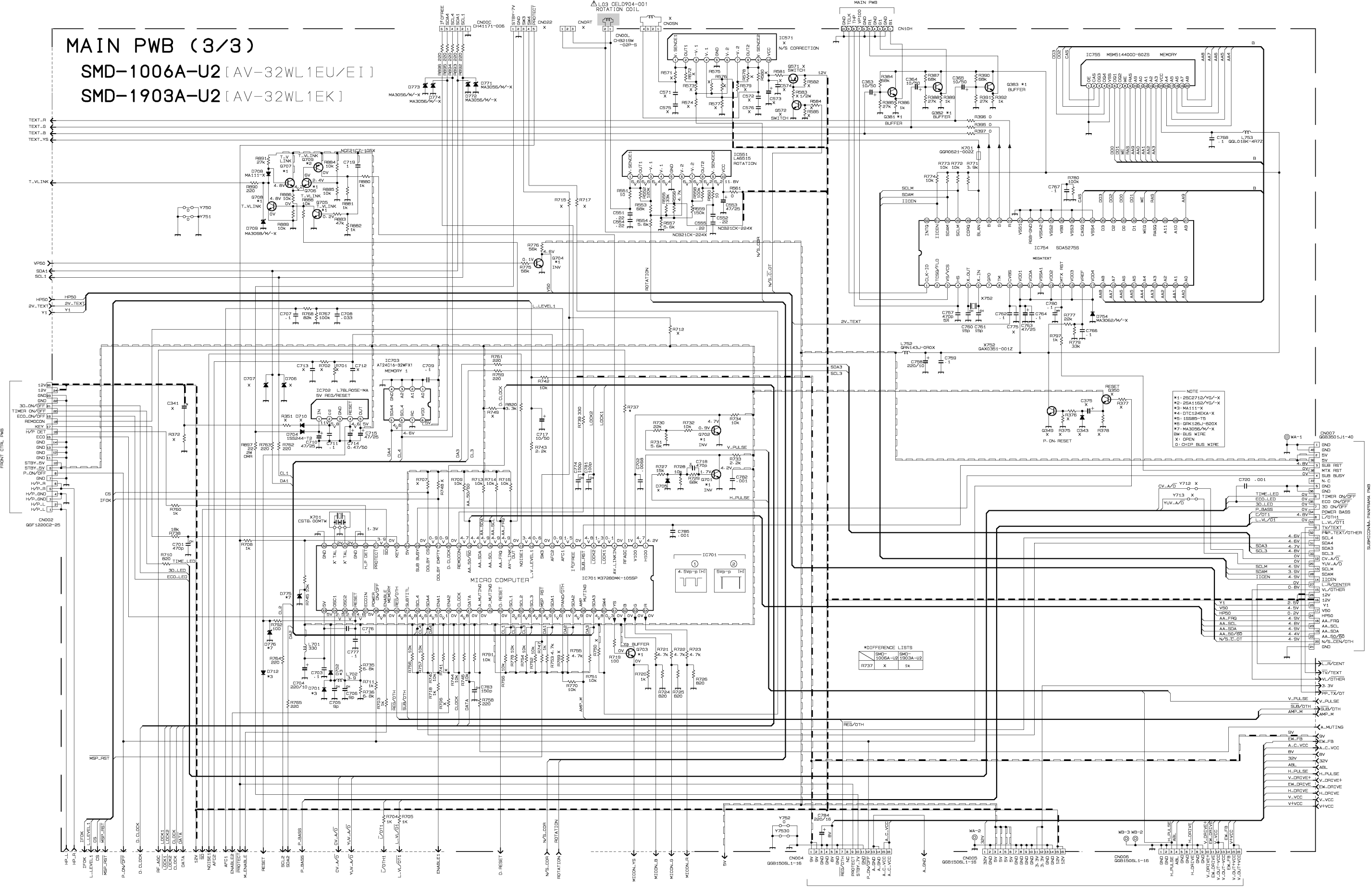
## [ AV-32WL1EK ]



MAIN PWB CIRCUIT DIAGRAM (3/3)

AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK

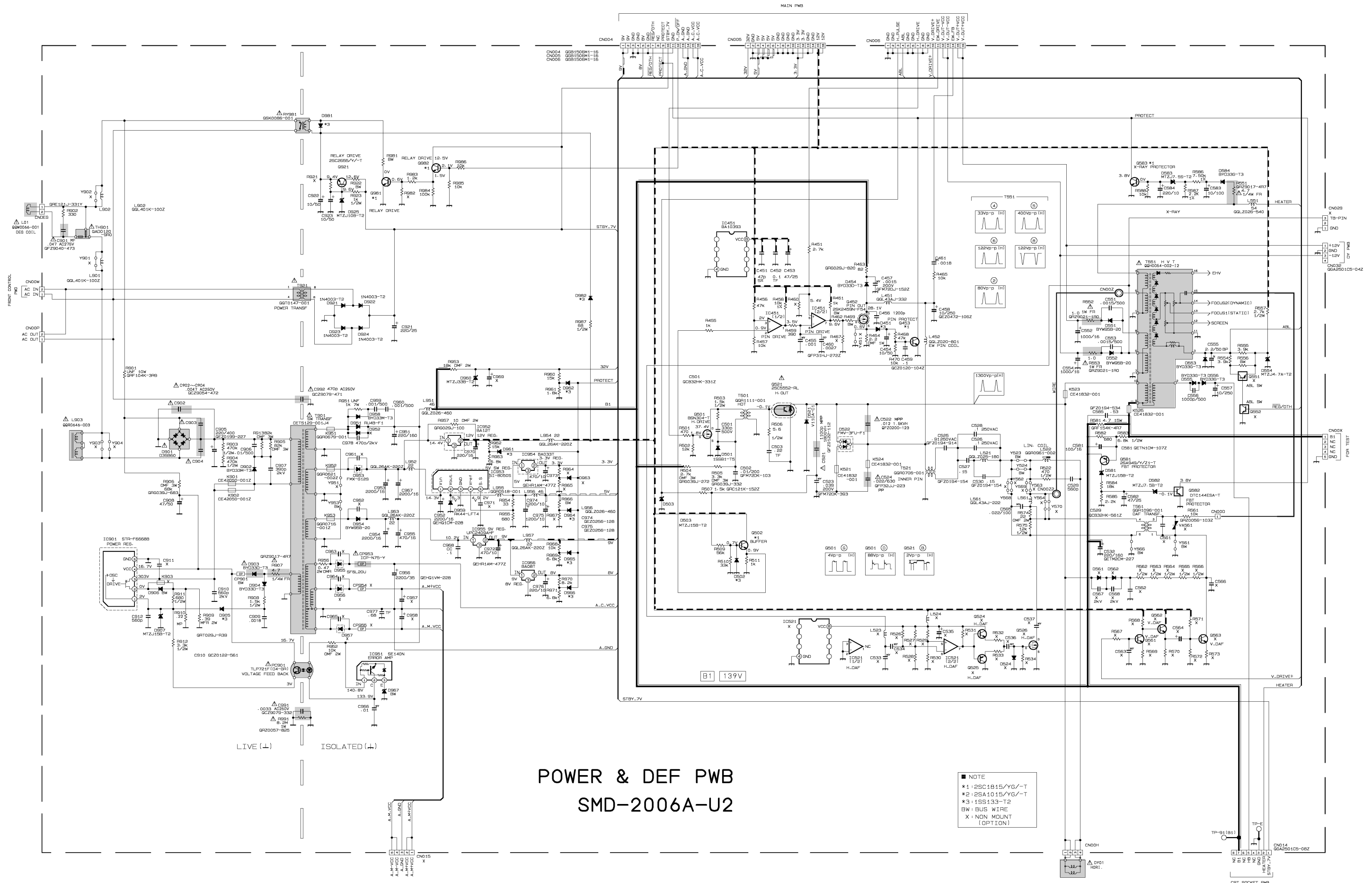
AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK

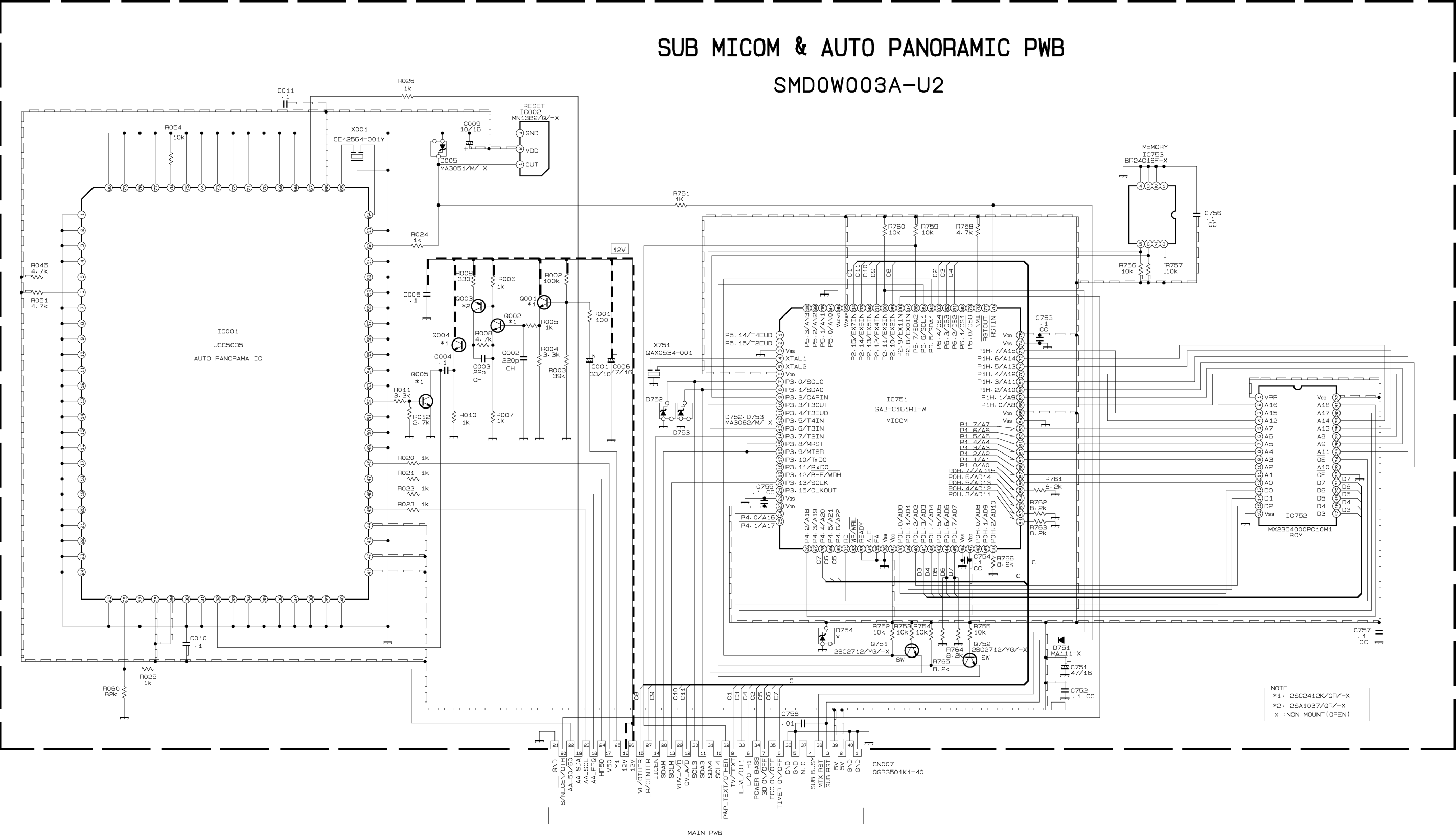


# POWER & DEF PWB CIRCUIT DIAGRAM

AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK

AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK



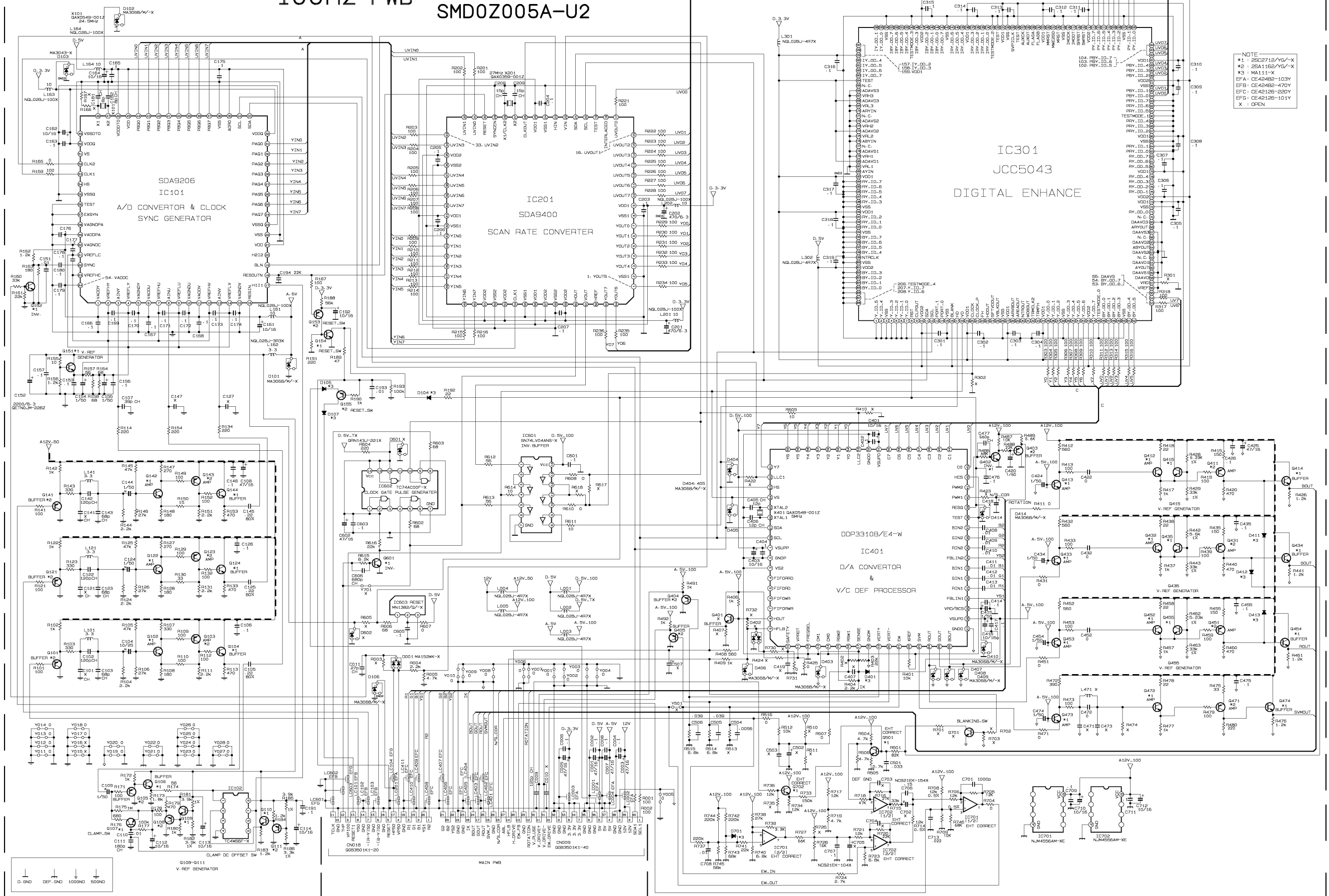


# 100Hz PWB CIRCUIT DIAGRAM

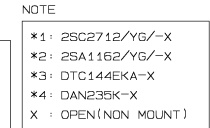
AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK

AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK

## 100Hz PWB SMD0Z005A-U2

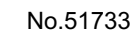


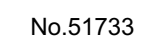
## IF PWB SMD0F003A-U2 [AV-32WL1EU/EI]



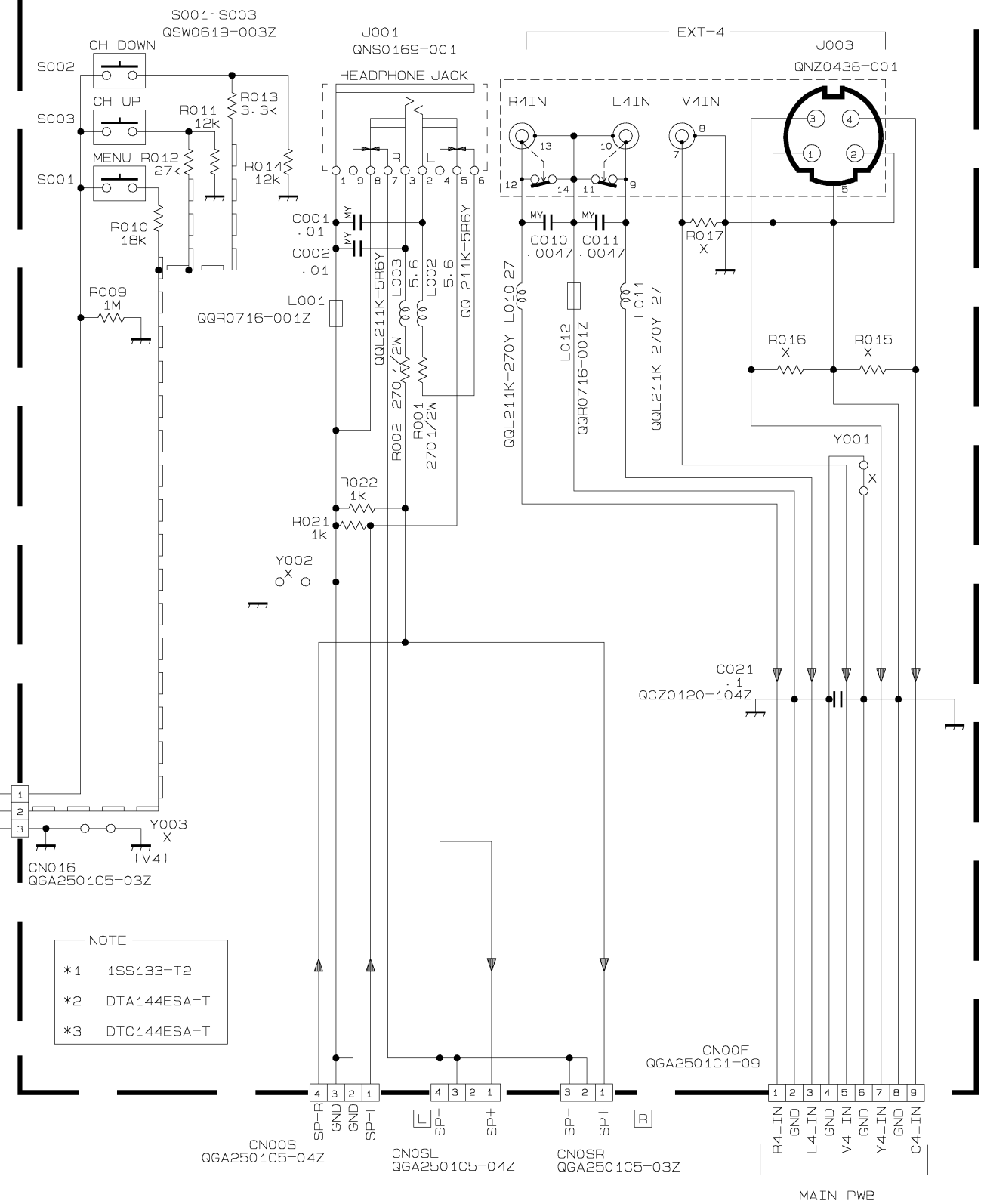
NOTE

|                     |
|---------------------|
| *1: 2SC2712/YG/-X   |
| *2: 2SA1162/YG/-X   |
| *3: DTC144EKA-X     |
| *4: DAN235K-X       |
| X : OPEN(NON MOUNT) |





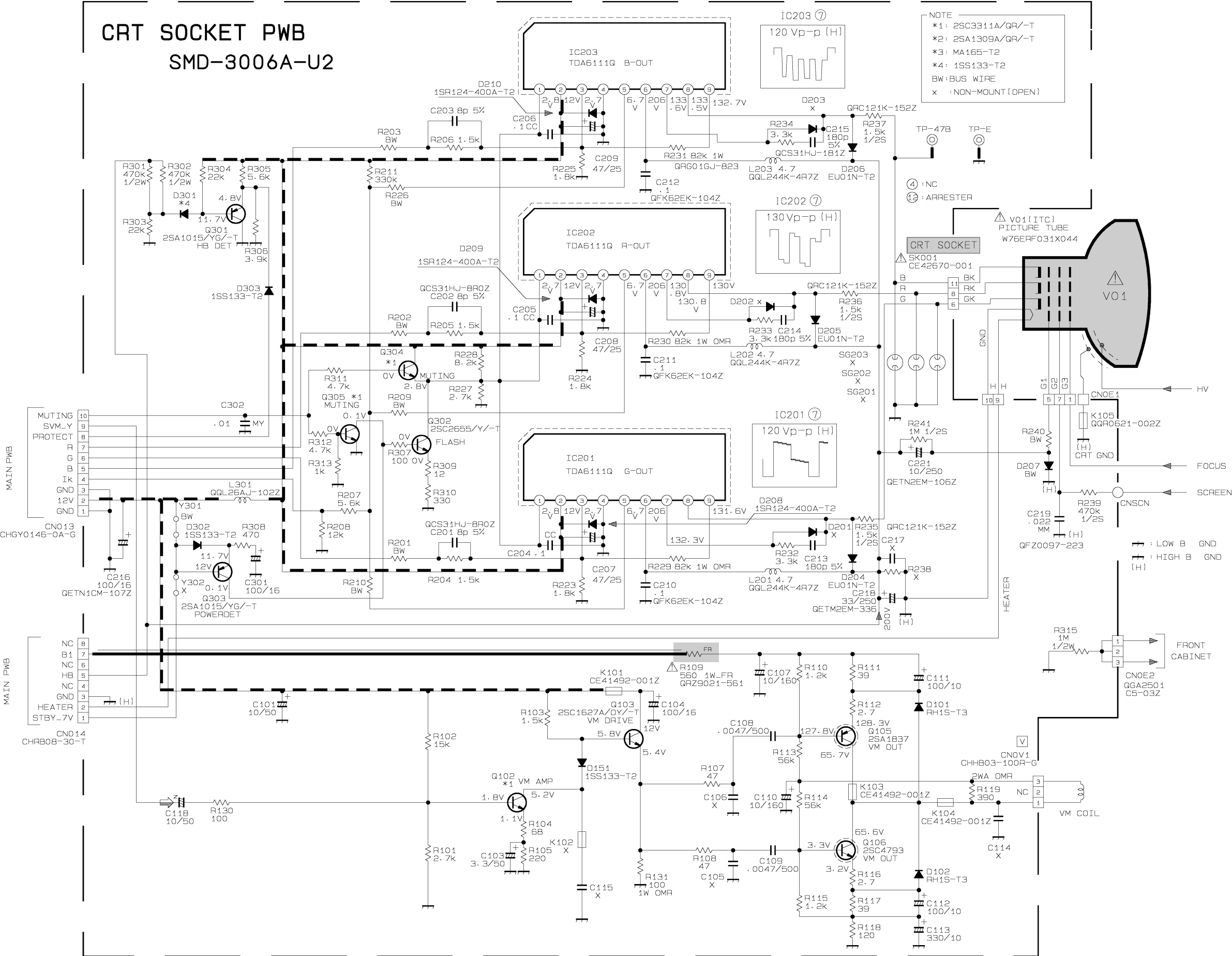
SMD-8107A-U2



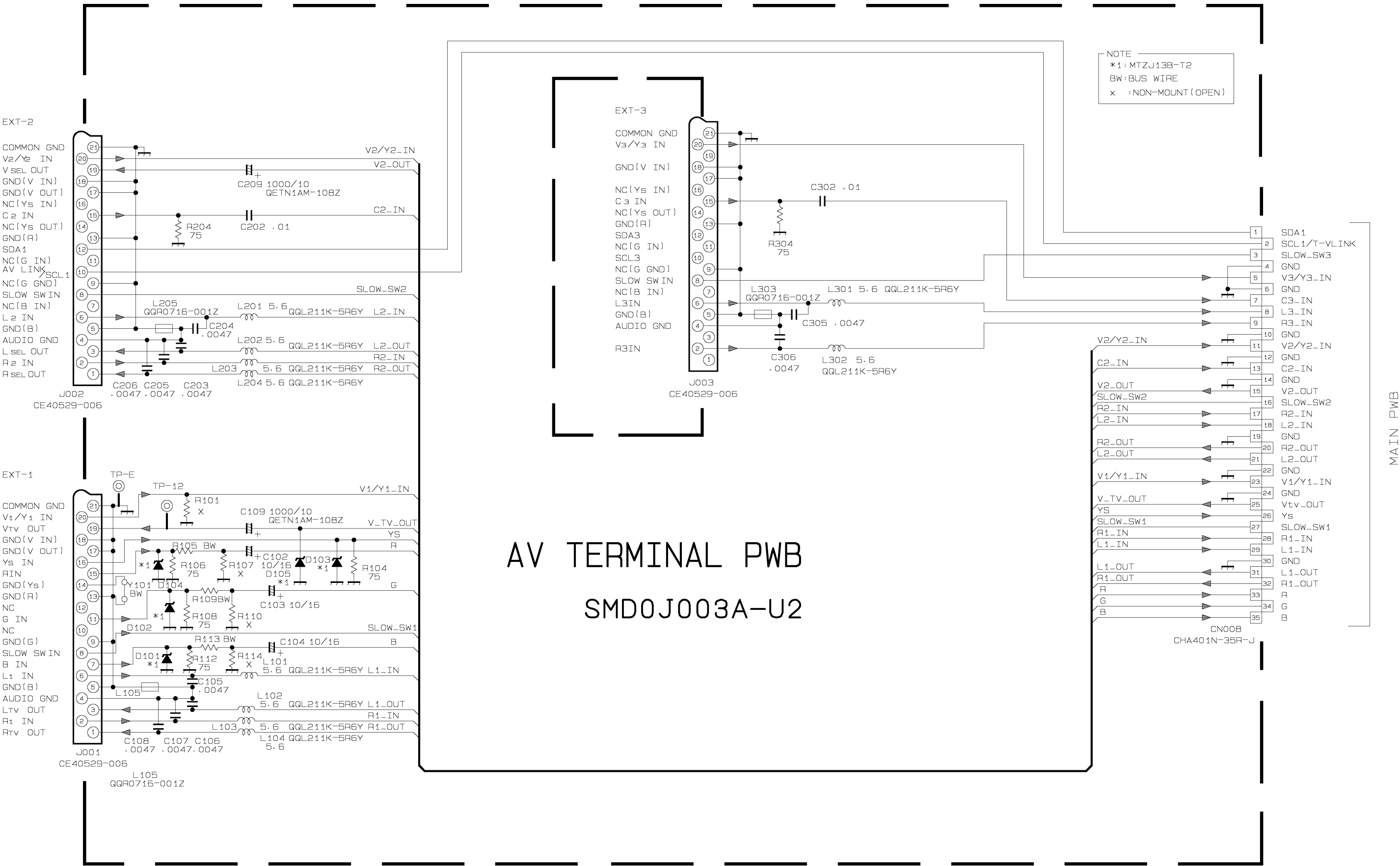
CRT SOCKET PWB CIRCUIT DIAGRAM

AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK

AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK



AV TERMINAL PWB CIRCUIT DIAGRAM

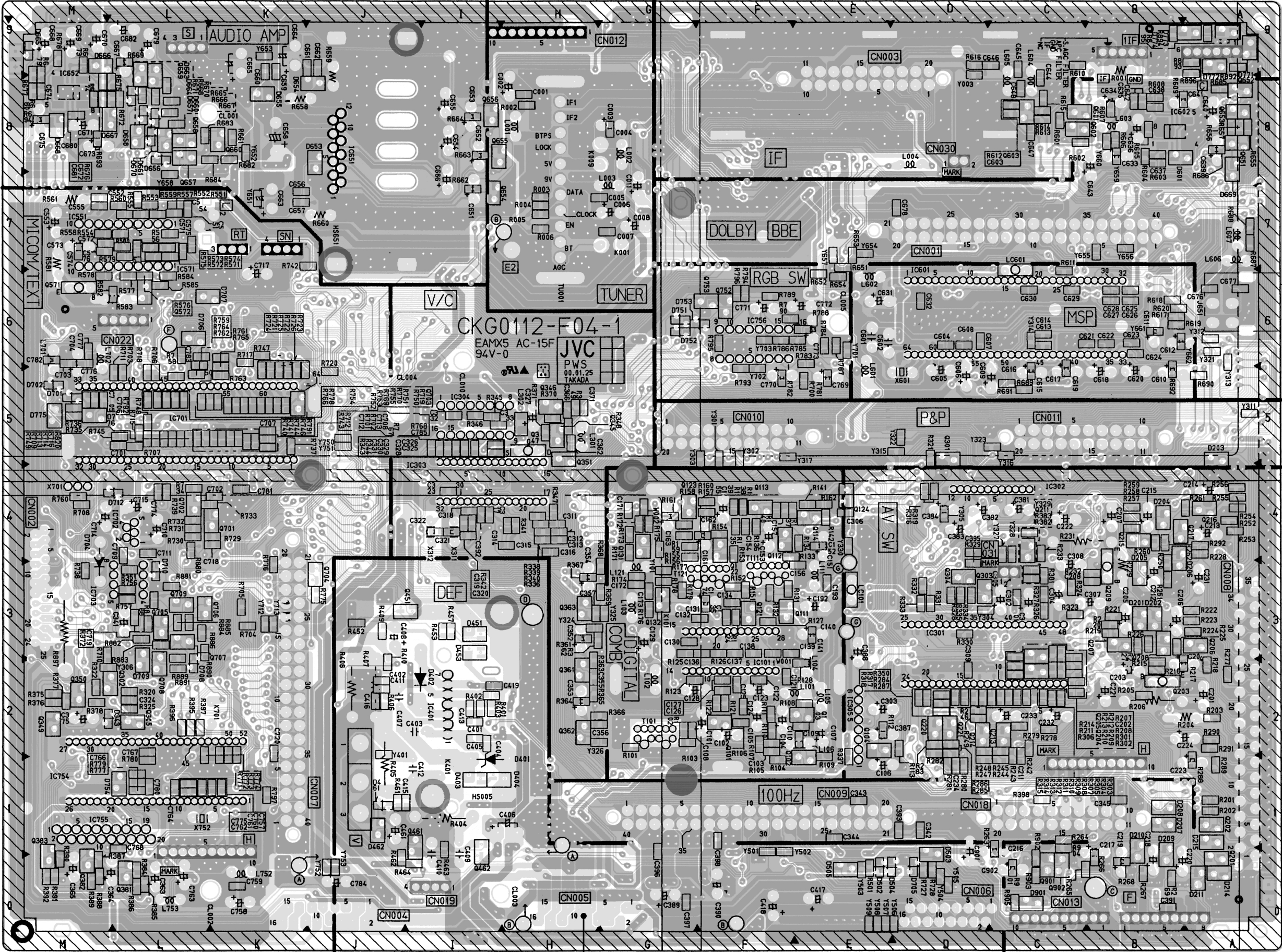


PATTERN DIAGRAMS MAIN PWB PATTERN

AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK

AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK

FRONT

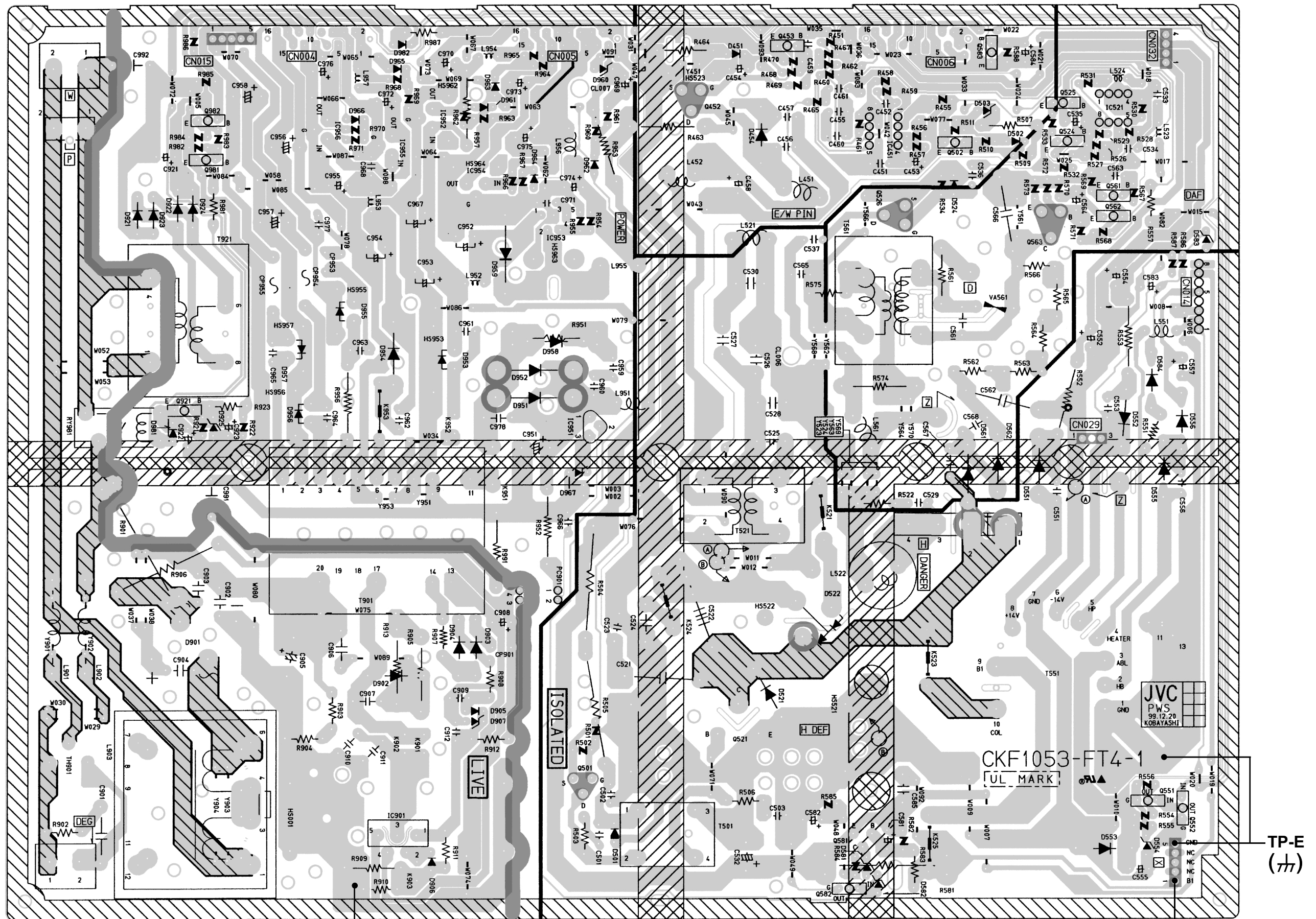


POWER & DEF PWB PATTERN

AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK

AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK

FRONT

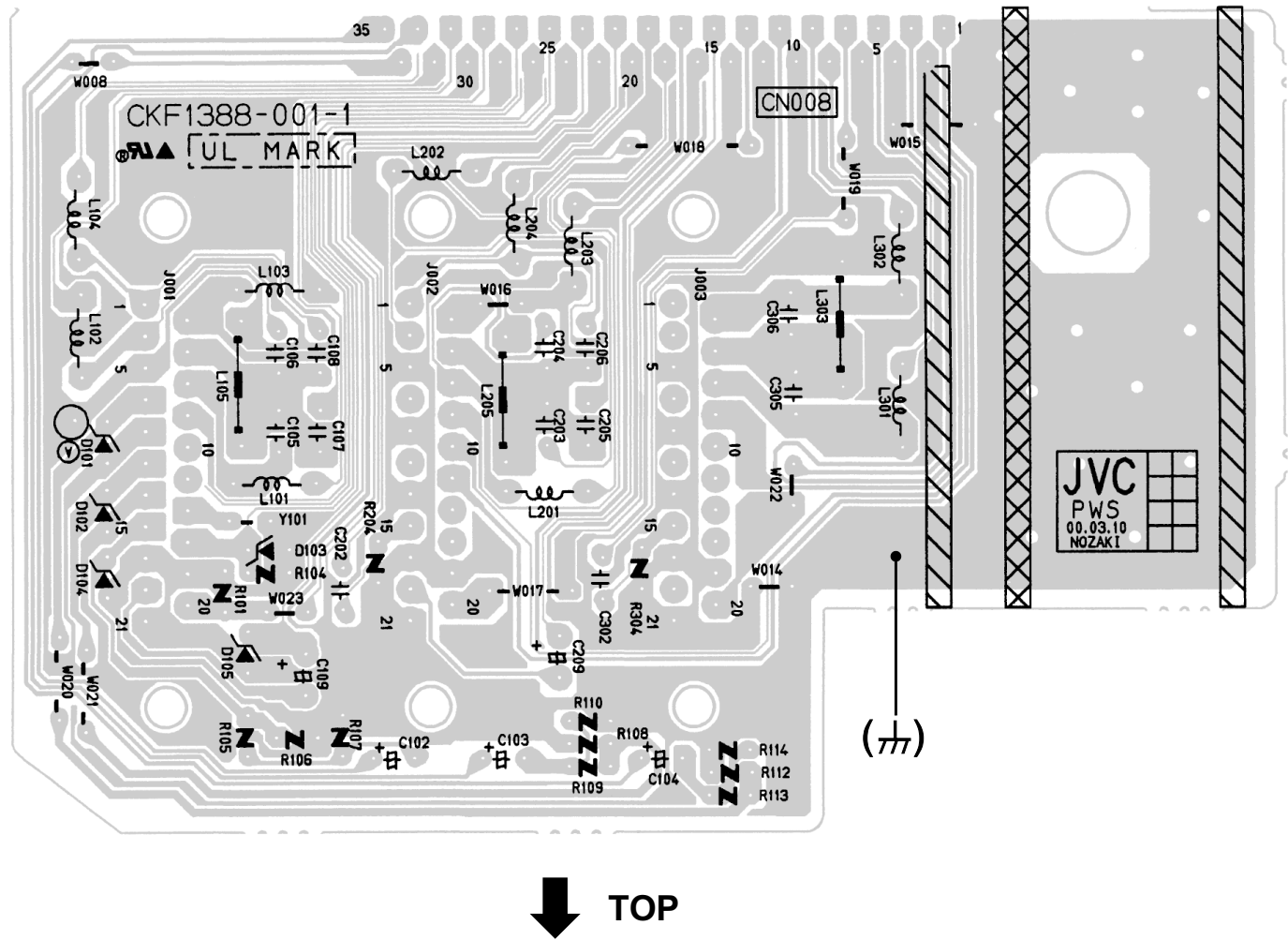


(T)

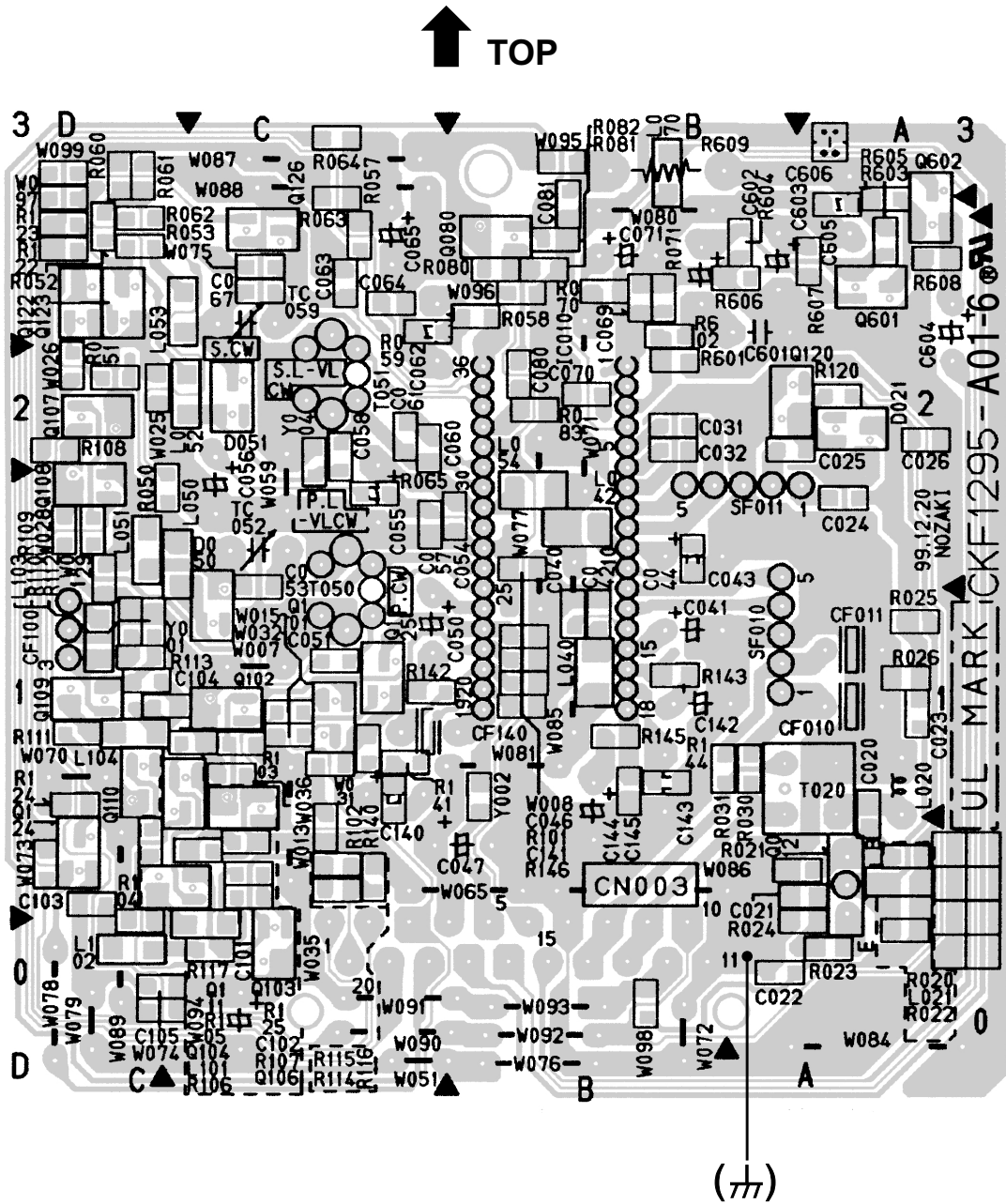
TP-E  
(H)

TP-91(B1)

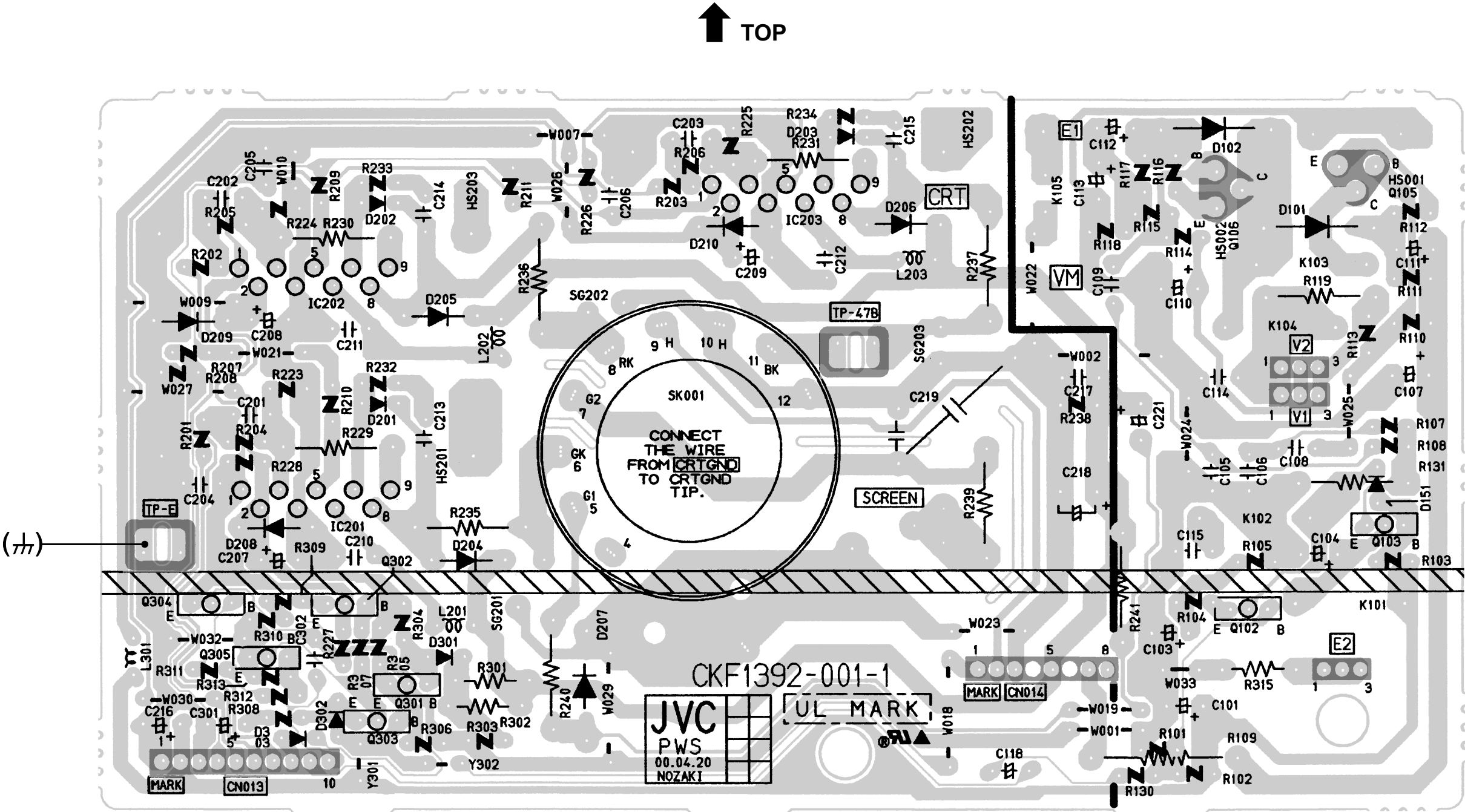
AV TERMINAL PWB PATTERN



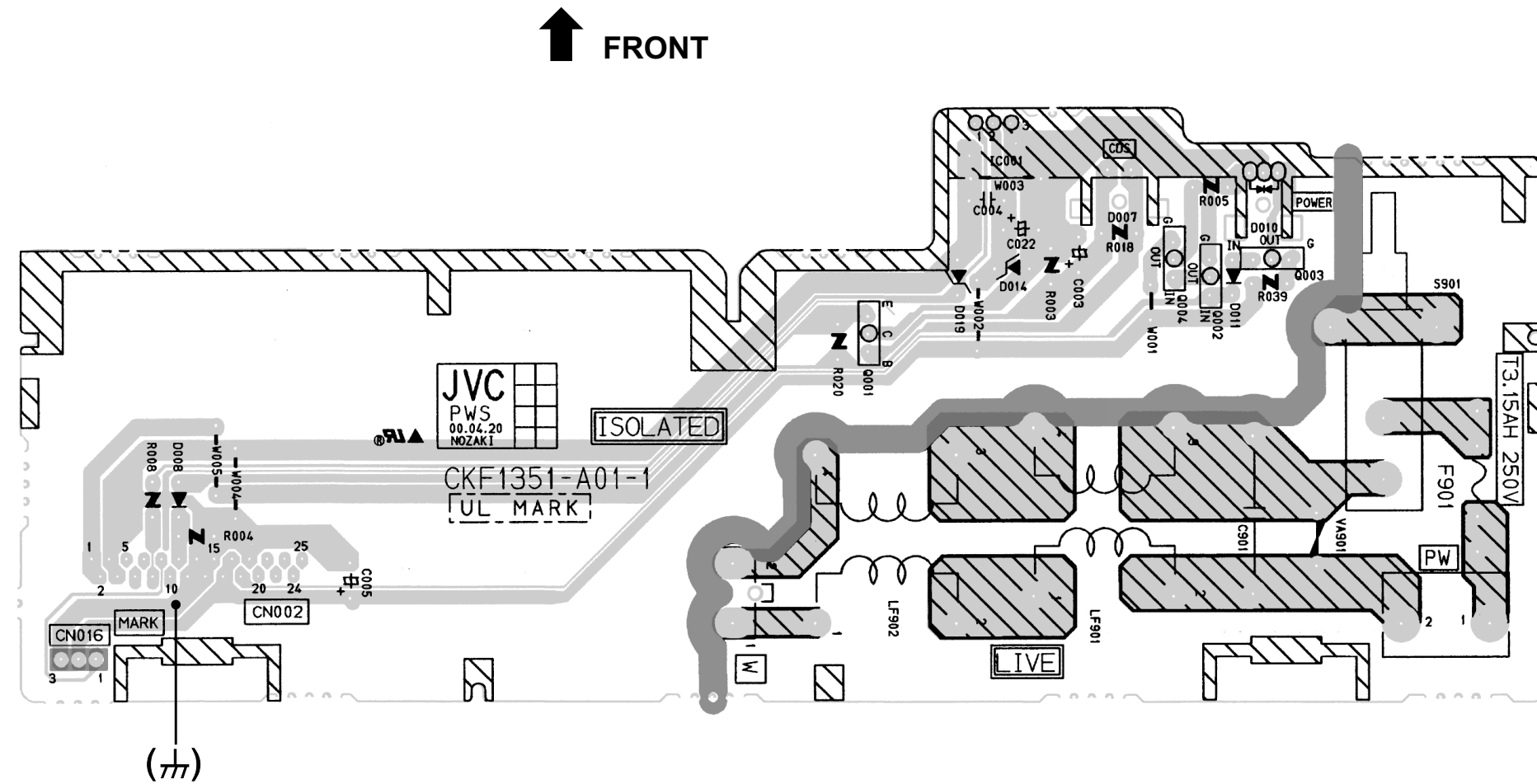
IF PWB PATTERN



CRT SOCKET PWB PATTERN



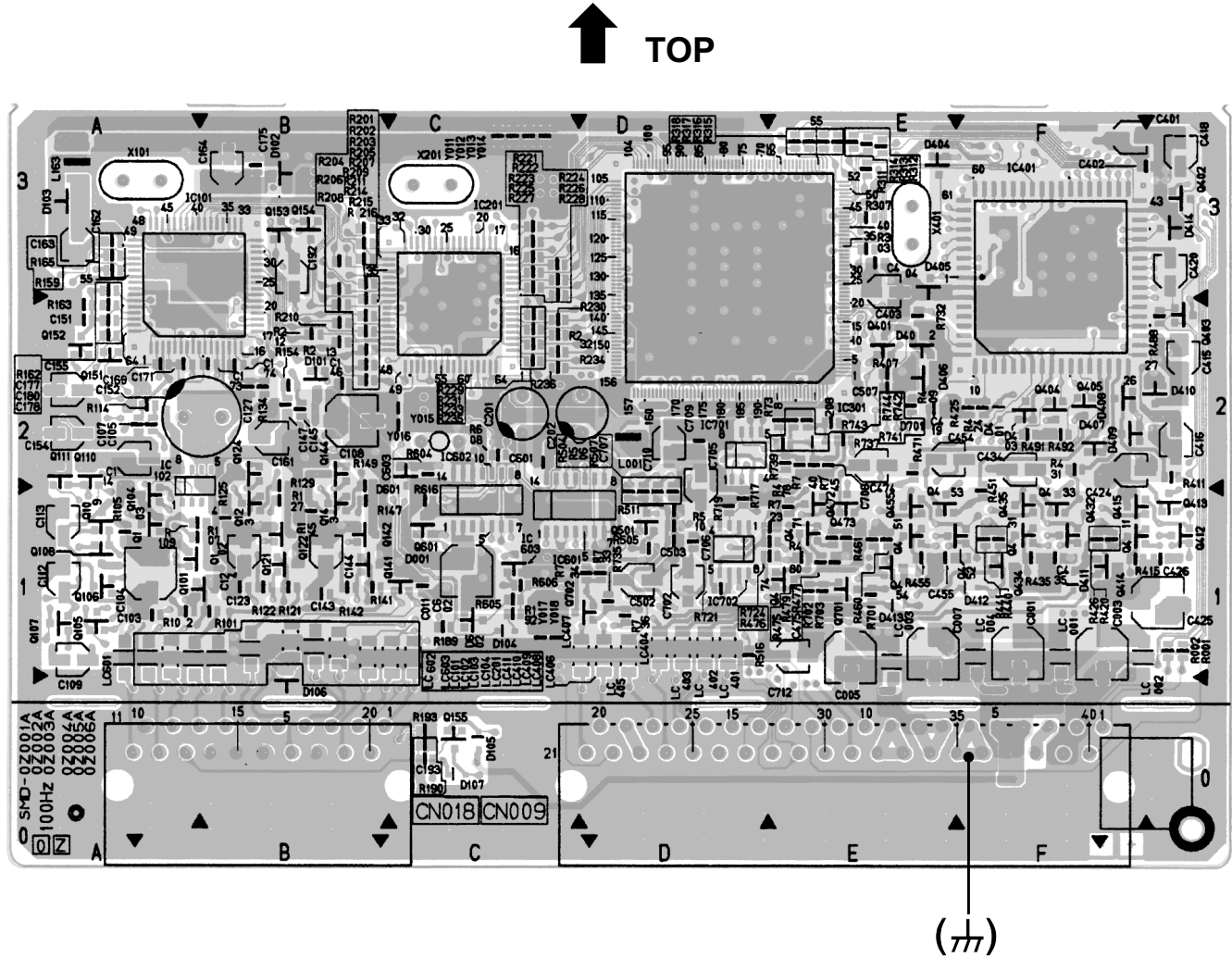
FRONT CONTROL PWB PATTERN



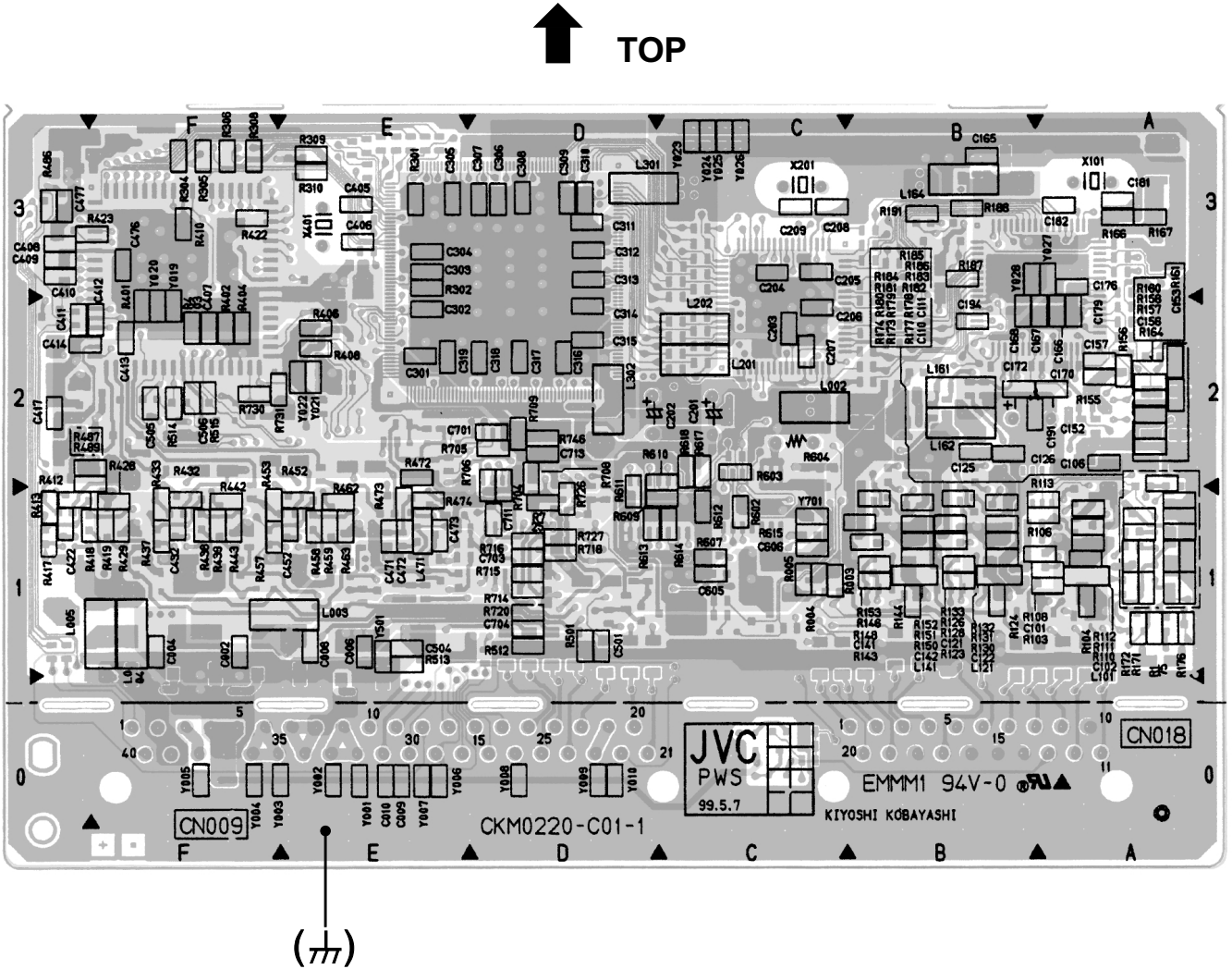
AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK

AV-32WL1EU  
AV-32WL1EI  
AV-32WL1EK

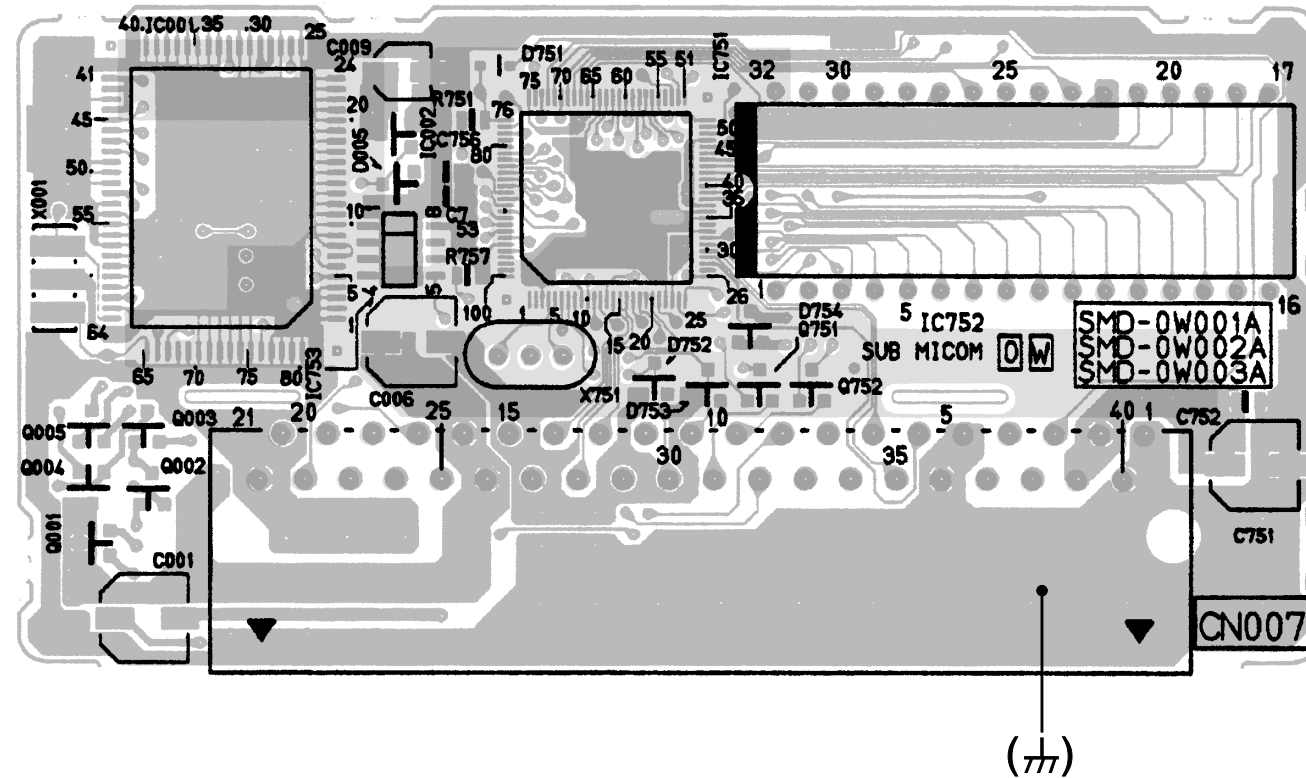
100Hz PWB PATTERN (PARTS SIDE)



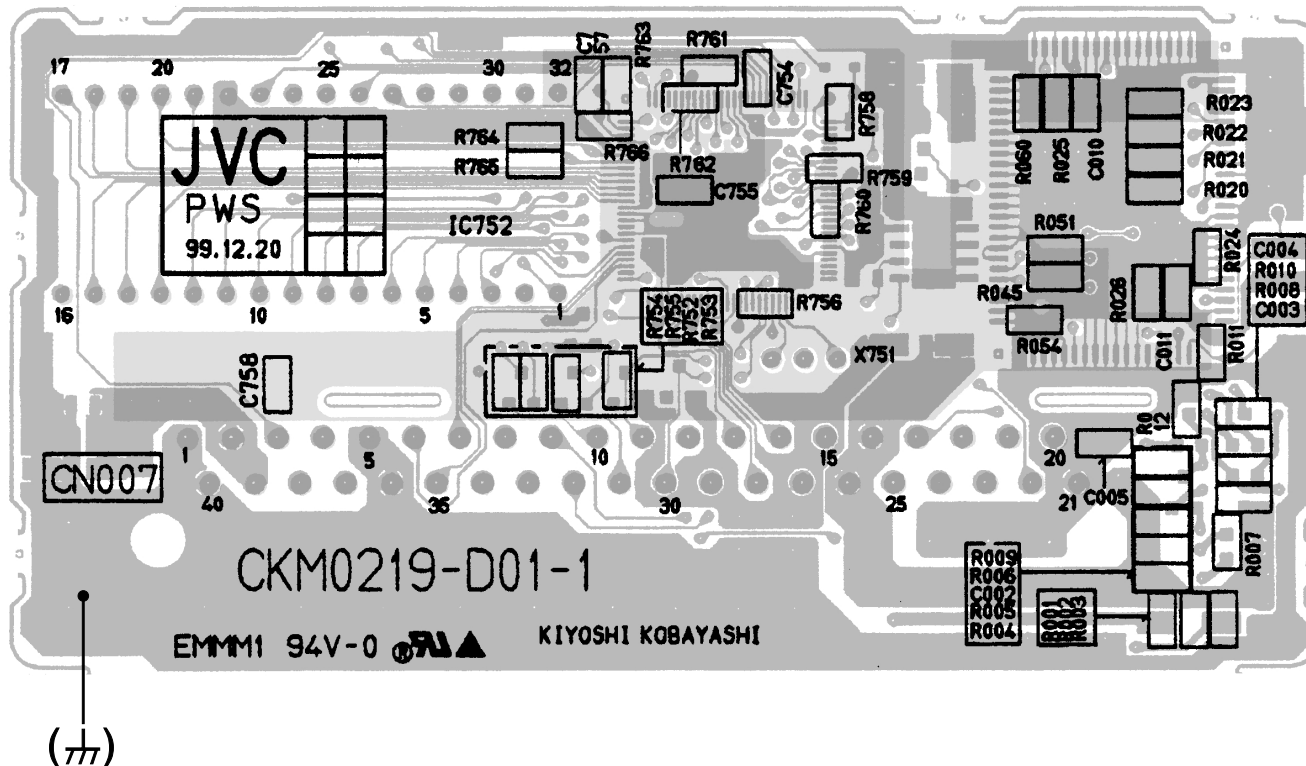
100Hz PWB PATTERN (SOLDER SIDE)



### SUB MICON & AUTO PANORAMA PWB PATTERN (PARTS SIDE)



**SUB MICON & AUTO PANORAMA PWB PATTERN (SOLDER SIDE)**



### BBE PWB PATTERN

